DOCUMENT RESUME

ED 166 240 TM 008 244

AUTHOR	Bortin, Barbara H.
TITLE	Milwaukee Bilingual Education Program 1977-1978. (ESEA Title VII Bilingual Grant # G 007 07202).
INSTITUTION	Milwaukee Public Schools, Wis. Dept. of Educational Research and Program Assessment.
PUB DATE	78
NOTE	138p.; For related document, see ED 135 823 ; Page 139 is in Spanish
EDRS PRICE	MF-$0.83 HC-$7.35 Plus Postage.
DESCRIPTORS	*Academic Achievement; *Bilingual Education; *Educational Assessment; Elementary Secondary Education; Language Skills; Mathematics; *Multicultural Education; Parent Attitudes; Program Descriptions; *Program Evaluation; Reading Achievement; *Spanish Speaking; Student Attitudes; Typewriting
IDENTIFIERS	Elementary Secondary Education Act Title VII; Milwaukee Public Schools WI; Wisconsin (Milwaukee)

ABSTRACT

This evaluation report describes the outcomes of the third year of an ESEA Title VII continuation grant to refine an exemplary bilingual/bicultural kindergarten-primary prototype program and to develop three new secondary subjects: English for Latinos, Bilingual Typing, and Career Orientation. The 1,004 pupils in the 1976-77 program varied in language dominance from monolingual English through bilingualism to monolingual Spanish. For these pupils in a "developmental" model, bilingual teachers presented the regular curricula in both Spanish and English in a program emphasizing Hispanic culture. The bilingual/bicultural program and the evaluation design are described. Results are presented for kindergarten, English reading, Spanish reading, bilingual language skills, mathematics, secondary school programs, English for Latinos, and bilingual typing. Additional studies include attitudes toward school, a parent survey, a bilingual typing survey, a modified cloze test for Spanish reading comprehension, a census of limited-English-speaking pupils, and evaluation of a preservice workshop. (Author/CTM)

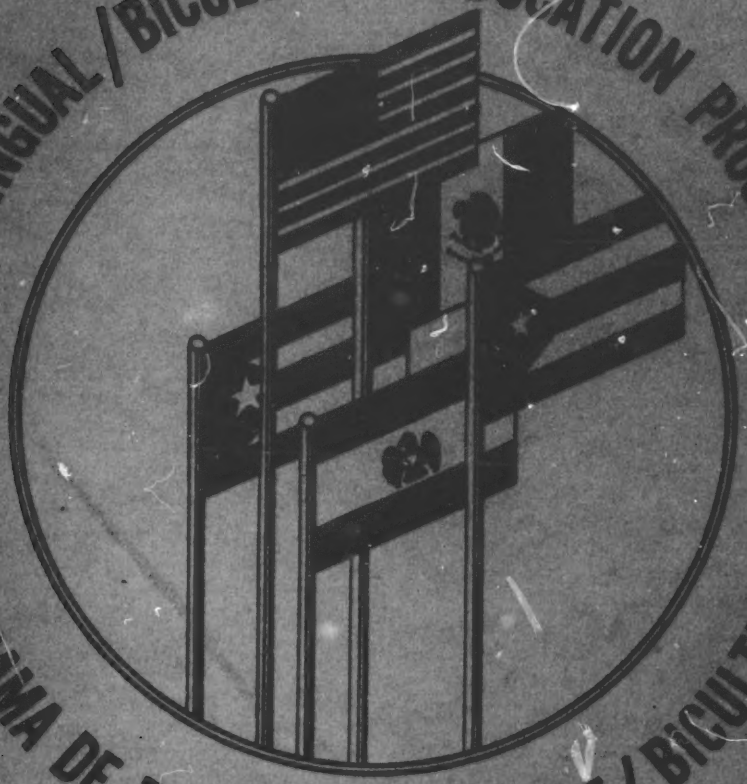
****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED166240

milwaukee public schools

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ESEA TITLE VII
BILINGUAL/BICULTURAL EDUCATION PROGRAM



PROGRAMA DE EDUCACION BILINGUE/BICULTURAL

1977-1978

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Barbara Berton
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

TM 008 244

DIVISION OF PLANNING AND LONG-RANGE DEVELOPMENT

DEPARTMENT OF EDUCATIONAL RESEARCH AND PROGRAM ASSESSMENT

MILWAUKEE PUBLIC SCHOOLS
Milwaukee, Wisconsin

MILWAUKEE BILINGUAL EDUCATION PROGRAM

1977 - 1978

(ESEA Title VII Bilingual Grant # G 007507202)

Division of Planning and
Long-Range Development

Department of Educational Research
and Program Assessment

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
LIST OF FIGURES	vi
INTRODUCTION	1
PROGRAM DESCRIPTION	7
EVALUATION OF ACHIEVEMENT	
Evaluation Design	25
Kindergarten	28
English Reading	39
Spanish Reading	46
Bilingual Language Skills	53
Mathematics	64
Secondary Evaluation	70
English for Latinos	71
Bilingual Typing	79
EVALUATION OF ATTITUDES	
Attitude Toward School	89
Parent Survey	92
ADDITIONAL STUDIES	103
Bilingual Typing Survey	104
Modified Cloze Test for Spanish Reading Comprehension	111
A Census of Limited-English-Speaking Pupils in the Milwaukee Public Schools	115
Evaluation of Preservice Workshop	120
SUMMARY AND RECOMMENDATIONS	121
REFERENCES	129
ABBREVIATIONS	133
APPENDIX	
Cuestionario de Padres	139
SOBER Español Objectives	141

LIST OF TABLES

Table		Page
1	ESEA TITLE VII MILWAUKEE BILINGUAL EDUCATION PROGRAM, 1977-1978 ATTRITION AND LATE ENTRY	12
2	TITLE I ENROLLMENT OF TITLE VII PUPILS	17
3	BILINGUAL PROGRAM SECONDARY SCHOOLS	18
4	PERFORMANCE OF BILINGUAL PROGRAM PUPILS ON THE METROPOLITAN READINESS TESTS, LEVEL I, MAY 1978	33
5	KINDERGARTEN PERFORMANCE ON THE PRE-READING SKILLS COMPOSITE, METROPOLITAN READINESS TESTS, LEVEL I, MAY 1978	34
6	KINDERGARTEN PERFORMANCE ON THE METROPOLITAN READINESS TESTS SUBTESTS, LEVEL II, MAY 1978	36
7	KINDERGARTEN PERFORMANCE ON THE PRE-READING SKILLS COMPOSITE, METROPOLITAN READINESS TESTS, LEVEL II, MAY 1978	37
8	BILINGUAL PROGRAM MEAN ENGLISH READING LEVELS, SEPTEMBER 1977 AND JUNE 1978	42
9	COMPARISON OF BILINGUAL PROGRAM TITLE I PUPILS WITH TOTAL TITLE I METROPOLITAN ACHIEVEMENT TESTS, READING	42
10	UPPER-PRIMARY READING PERFORMANCE, METROPOLITAN ACHIEVEMENT TESTS, ELEMENTARY F, MAY 1978	44
11	PERFORMANCE OF BILINGUAL PROGRAM PUPILS ON SOBER ESPANOL, 1977-1978	50
12	PERFORMANCE OF UPPER-PRIMARY PUPILS ON THE INPUT TEST OF SPANISH READING COMPREHENSION	51
13	BILINGUAL PROGRAM MEAN SPANISH READING LEVELS, SEPTEMBER 1977 AND JUNE 1978	51
14	LANGUAGE ASSESSMENT BATTERY, MIDDLE PRIMARY, LEVEL I	54
15	LANGUAGE ASSESSMENT BATTERY, UPPER PRIMARY, LEVEL II	54
16	PUPIL PERFORMANCE, LANGUAGE ASSESSMENT BATTERY, MIDDLE PRIMARY, LEVEL I	57
17	PUPIL PERFORMANCE, LANGUAGE ASSESSMENT BATTERY, UPPER PRIMARY, LEVEL II	59

LIST OF TABLES (Continued)

Table		Page
18	AVERAGE READING LEVELS, JUNE 1978	61
19	PUPIL READING LEVELS, ENGLISH AND SPANISH, SEPTEMBER 1977 AND JUNE 1978	62
20	UPPER-PRIMARY MATHEMATICS ACHIEVEMENT, METROPOLITAN ACHIEVEMENT TESTS, ELEMENTARY, MAY 1978	68
21	ENGLISH FOR LATINOS USAGE TEST	74
22	PRETEST RESULTS ON THE LANGUAGE ASSESSMENT BATTERY, LEVEL III, ENGLISH, BY ENGLISH-FOR-LATINOS STUDENTS	75
23	CRITERION PERFORMANCE, LANGUAGE ASSESSMENT BATTERY, ENGLISH, LEVEL III	76
24	LANGUAGE ASSESSMENT BATTERY, ENGLISH FOR LATINOS, LEVEL III, ENGLISH	77
25	DIFFICULT LANGUAGE ASSESSMENT BATTERY ITEMS	77
26	TYPING I AND TYPING II PUPIL DATA	80
27	STUDENT PERFORMANCE, TYPING I, 1977-1978	83
28	STUDENT PERFORMANCE, TYPING II, SECOND SEMESTER, 1978	84
29	ELEMENTARY ATTITUDE TOWARD SCHOOL AS MEASURED BY "MY CLASSROOM" SURVEY	90
30	PARENT SURVEY RESULTS	94
31	BILINGUAL TYPING SURVEY, FEBRUARY 1978	105
32	PUPIL PERFORMANCE ON THE INPUT AND CLOZE TESTS OF SPANISH READING COMPREHENSION, JUNE 1978	113
33	CENSUS OF STUDENTS WITH LIMITED-ENGLISH-SPEAKING ABILITY, JANUARY 1978	116
34	TEACHER OPINION OF PRESERVICE WORKSHOPS	120

LIST OF FIGURES

Figure		Page
1	LOCATION OF SCHOOLS HAVING BILINGUAL PROGRAMS	4
2	KINDERGARTEN PUPIL DATA	13
3	LOWER PRIMARY PUPIL DATA	14
4	MIDDLE PRIMARY PUPIL DATA	15
5	UPPER PRIMARY PUPIL DATA	16
6	SECONDARY PUPIL DATA	20

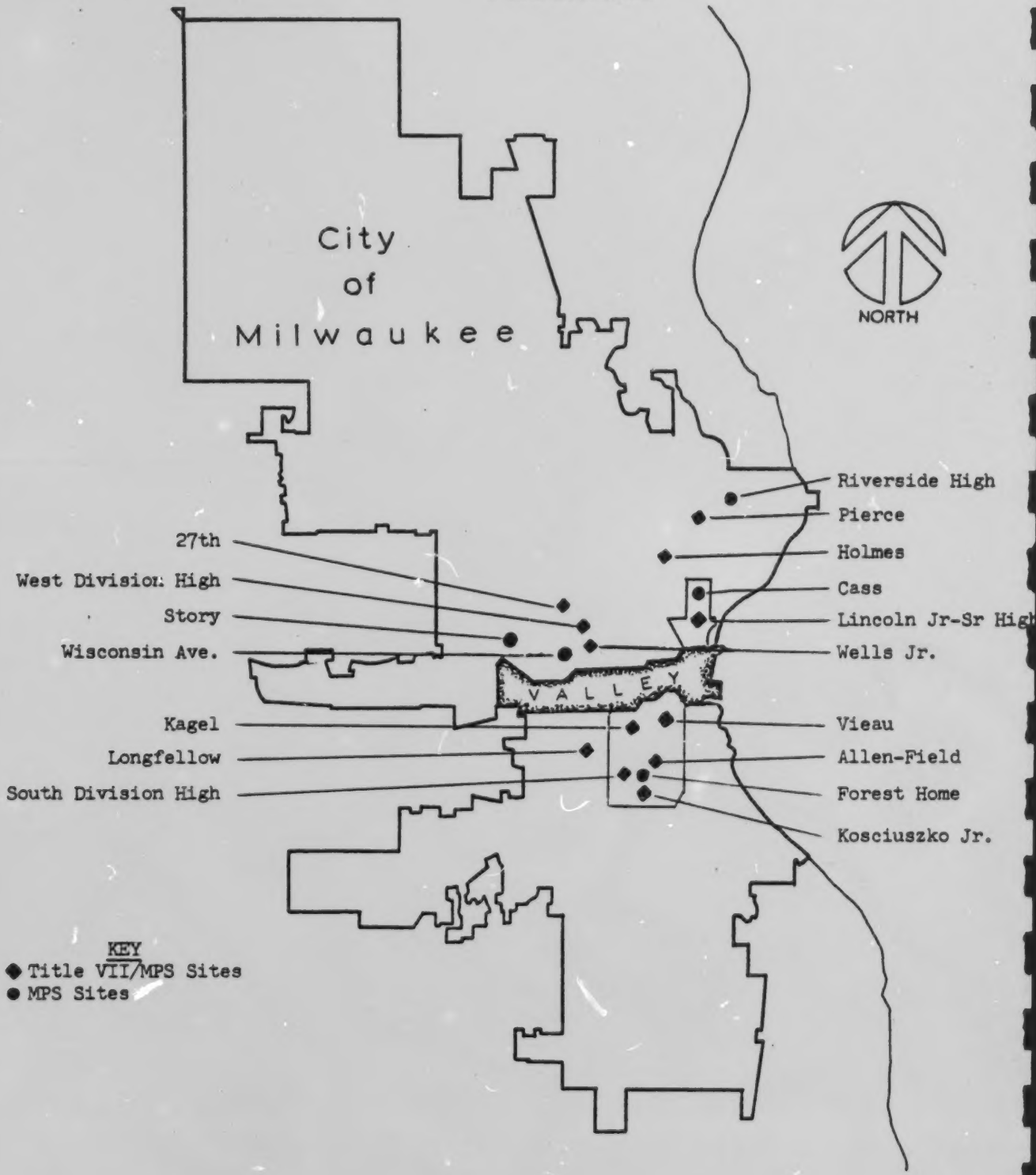
INTRODUCTION

In 1977-1978, the Milwaukee Bilingual/Bicultural Education Program remained at the forefront of the bilingual movement, a position which it has held since the pioneer year, 1969. Milwaukee's program has not been "hampered by generally weak political support and widespread confusion and debate over its basic philosophy". The growth of bilingual/bicultural education was thus described by the United States Commission on Civil Rights[1]. Milwaukee's strong program has been supported by original and continued citizen advocacy, the commitment of the Board of School Directors to a maintenance program, and State of Wisconsin legislation. Its philosophy has been based on a maintenance program which aims to develop bilingual individuals by offering a Spanish/English curriculum from kindergarten through twelfth grade. Students emerge from the Bilingual/Bicultural Program as citizens who are literate in two languages and have empathy with the cultures of the Americas.

In addition to strong political support and a firm basic philosophy, financial backing has primed the program's growth. Since 1969, ESEA Title VII has provided seed money to initiate bilingual curricula. ESEA Title I has contributed funds for classroom aides, compensatory education, and special services. The Milwaukee Public Schools has assumed responsibility for program components seeded by ESEA Title VII.

By the 1977-1978 school year, bilingual/bicultural projects operated in 11 elementary, two junior high, one junior-senior high, and three high schools (Figure 1).

figure 1. LOCATION OF SCHOOLS HAVING BILINGUAL PROGRAMS



This evaluation report describes the outcomes of the third year of an ESEA Title VII continuation grant to refine an exemplary kindergarten through upper primary prototype program and to develop three new secondary subjects: English for Latinos, Bilingual Typing I and II, and Career Orientation. The 1977-1978 projects were funded by an ESEA Title VII grant of $266,421; $196,888 allocated for program support and $29,533 for teacher training. ESEA Title I furnished $47,636 for classroom aides. The Milwaukee Public Schools contributed $885,058 to Bilingual Program support.

This report includes a program description, evaluation design, program outcomes by grade level for the primary program and by course content for the secondary program, the results of surveys and special studies, a summary of findings, and recommendations suggested by the findings.

PROGRAM DESCRIPTION

Background

The United States Commission on Civil Rights reported in 1977 that "bilingual/bicultural education is considered a critical component of equal educational opportunity"(1). The Commission found, in a 1977 study, that the development of bilingual programs in several states was hampered because of problems such as lack of commitment to quality programs, insufficient funds, and misunderstanding of the concept. This finding applies neither to Wisconsin nor to Milwaukee. Milwaukee recognized the needs and initiated the ESEA Title VII Bilingual/Bicultural Education Program in 1969, in compliance with the Bilingual Education Act passed by Congress in 1968. The Wisconsin Bilingual/Bicultural Education Law was passed in 1975. Milwaukee's program has served as a model for the nation and the state.

"Transitional" or "Developmental" are two philosophies of bilingual education defined in terms of language usage. A transitional program uses Spanish as a vehicle for teaching English language skills and mainstreams the pupil when he/she can function in a regular classroom. A developmental program uses both English and Spanish for subject content from kindergarten through the twelfth grade. The overall developmental program goal is to educate students to become fluent in both languages, to absorb both cultures, and to achieve grade-level proficiency in course content. The Milwaukee Board of School Directors has endorsed a Developmental Bilingual/Bicultural Program, in response to the request of the Hispanic community.

Milwaukee's Bilingual Program is characterized by:

-- Bilingual/bicultural teachers

-- Initial reading instruction in the child's dominant language, English or Spanish

-- The regular Milwaukee Public Schools' curriculum presented in both English and Spanish

-- An infusion of Hispanic culture and history

-- Supportive personnel including classroom aides, bilingual students' advisors and counselors at the secondary level, a bilingual parent coordinator and staff, a social worker and social work aides

-- A City-Wide Bilingual/Bicultural Advisory Committee of parent representatives from Bilingual Program schools

-- Both English and Spanish used as languages of the classrooms

-- All pupils instructed to comprehend, speak, read, and write both English and Spanish

Goals and objectives to guide each curriculum offering were developed by the supervisory and teaching staffs. They also wrote courses, selected textbooks, and developed materials.

1977-1978 Pupil Population

Primary Program

Seven north and southside schools served Title VII primary pupils:

Allen-Field - Kindergarten-Upper Primary

Kagel - Kindergarten-Upper Primary

Longfellow - Kindergarten-Lower Primary

Pierce - Kindergarten-Upper Primary

27th - Kindergarten-Upper Primary

Holmes - Lower Primary-Upper Primary

Vieau - Kindergarten-Upper Primary

The rate of attrition was 13 percent (Table 1).

As of May 1978, 818 pupils were served. The following information includes all pupils for whom data were reported. Ethnic background was 47 percent Mexican, 44 percent Puerto Rican, five percent Black, two percent Anglo, and two percent Other.

Pupils were 28 percent English-dominant, 19 percent Spanish-dominant, and 53 percent bilingual. Their homes were 19 percent English-dominant, 42 percent Spanish-dominant, and 39 percent bilingual.

Between September and May, 109 (13 percent) pupils left the program for the following reasons: transferred to another school, 40; moved out of the city, 34; moved to Puerto Rico or Mexico, eight; dropped the program, ten; no reason given, five.

1977-1978 was their first year in the program for 98 percent of pupils in kindergarten, 52 percent in lower primary, 25 percent middle primary, and 32 percent upper primary. Forty-four percent of those in upper primary had been in the program three years or more and had acquired initial reading skills in their dominant language.

The above data, on pupils enrolled all year, were collected in Spring 1978 and are presented in detail in Figures 2 to 5. They illustrate the great variation in language background and educational experience represented in Bilingual Program classrooms and the resulting challenges which faced every teacher.

TABLE 1

ESEA TITLE VII MILWAUKEE BILINGUAL EDUCATION PROGRAM
1977-1978 ATTRITION AND LATE ENTRY

TOTAL SERVED:	KINDER-GARTEN 188		LOWER PRIMARY 207		MIDDLE PRIMARY 207		UPPER PRIMARY 216		TOTAL ELEMENTARY 818		SECONDARY 186		PROGRAM TOTAL 1,004	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Dropped/Re-Entered	2	1	0	0	1	0.5	0	0	3	0.33			3	0.25
Moved Out of Town	9	5	5	2	8	4	12	6	34	4	3	2	37	4
Left Program	2	1	4	2	0	0	4	2	10	1	19	10	29	3
Transferred to Another School	18	10	9	4	4	2	9	4	40	5	2	1	42	4
Moved to Mexico/ Puerto Rico	2	0.5	0	0	5	2	1	0.5	8	1	10	5	18	2
Transferred to Another School's Bilingual Program	1	0.5	2	1	3	1	0	0	6	0.5	3	2	9	1
Left Program/Re-Entered	1	0.5	0	0	0	0	0	0	1	0.10	1	0.5	2	0.01
Left System	1	0.5	1	0.5	0	0	0	0	2	0.25	7	4	9	1
Destination Not Reported	1	0.5	0	0	3	1	1	0.5	5	0.5	1	0.5	6	0.05
Total Drops	37	20.0	21	10.0	24	12.0	27	13.0	109	13.00	46	25.0	155	15.00
Late Entry (Not included in total)	19	10	21	10	24	11	20	9	84	10	Not Reported			

FIGURE 2. KINDERGARTEN PUPIL DATA
N = 147

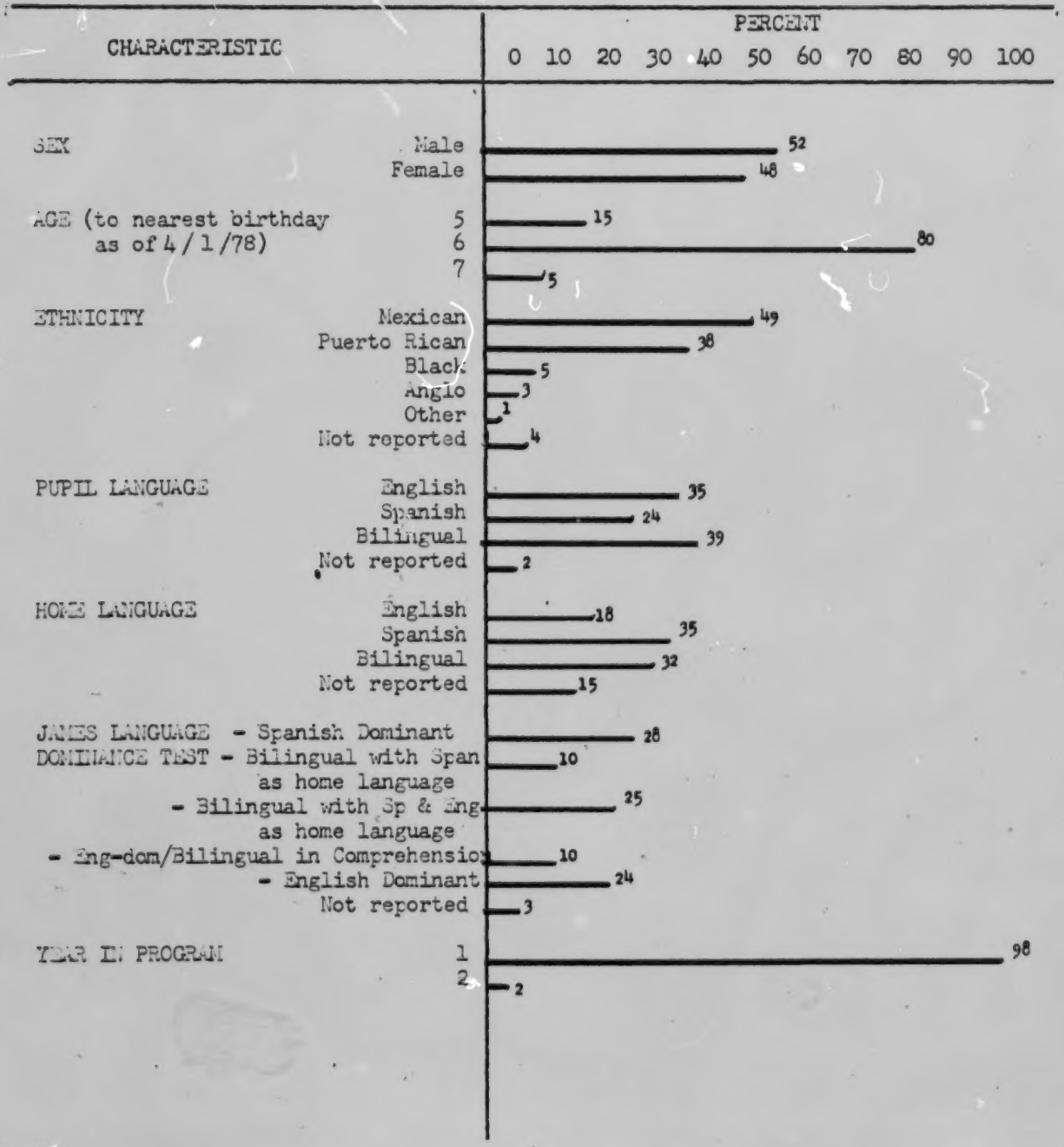


FIGURE 3. LOWER PRIMARY PUPIL DATA
N = 180

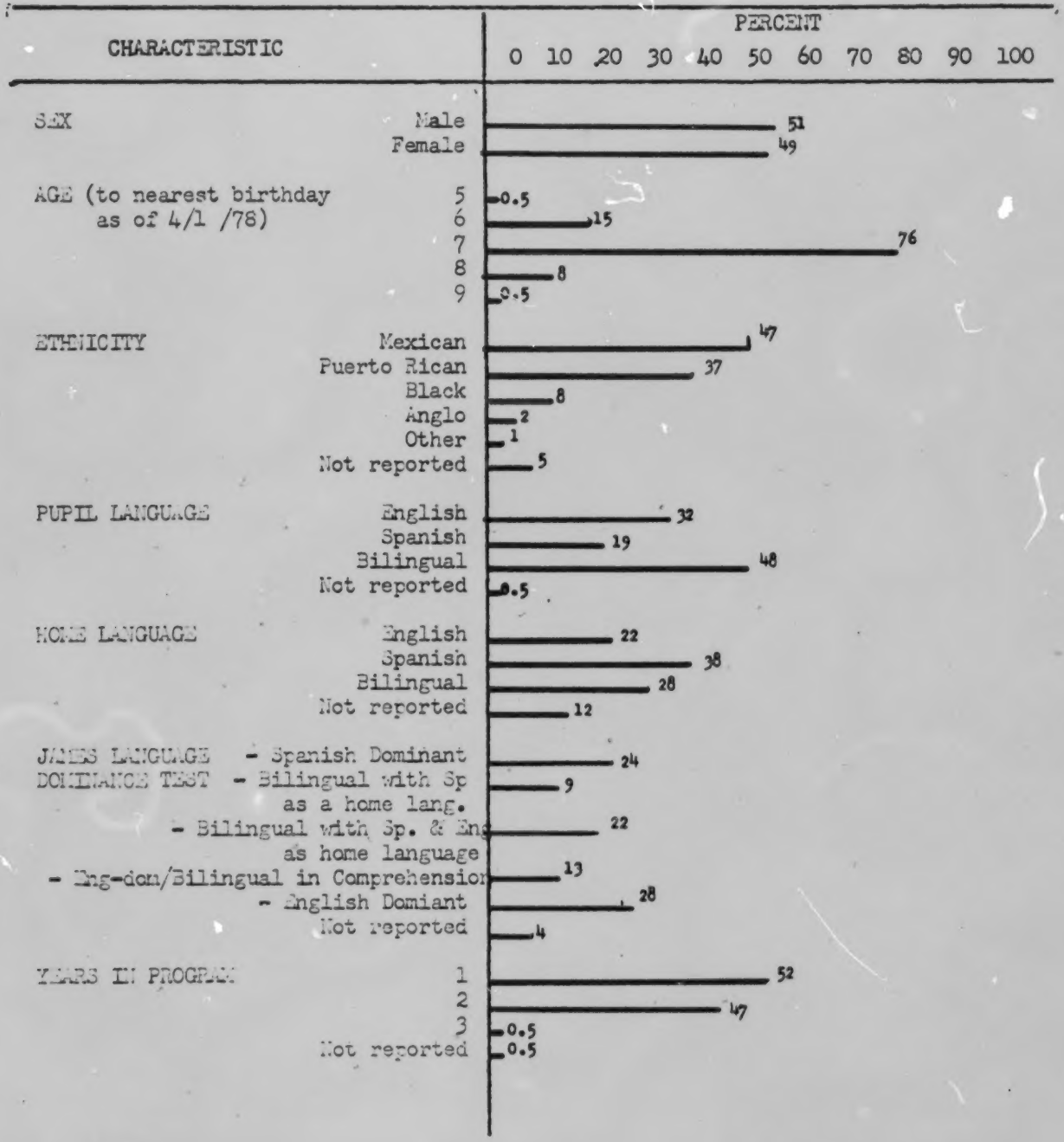


FIGURE 4. MIDDLE PRIMARY PUPIL DATA
N = 181

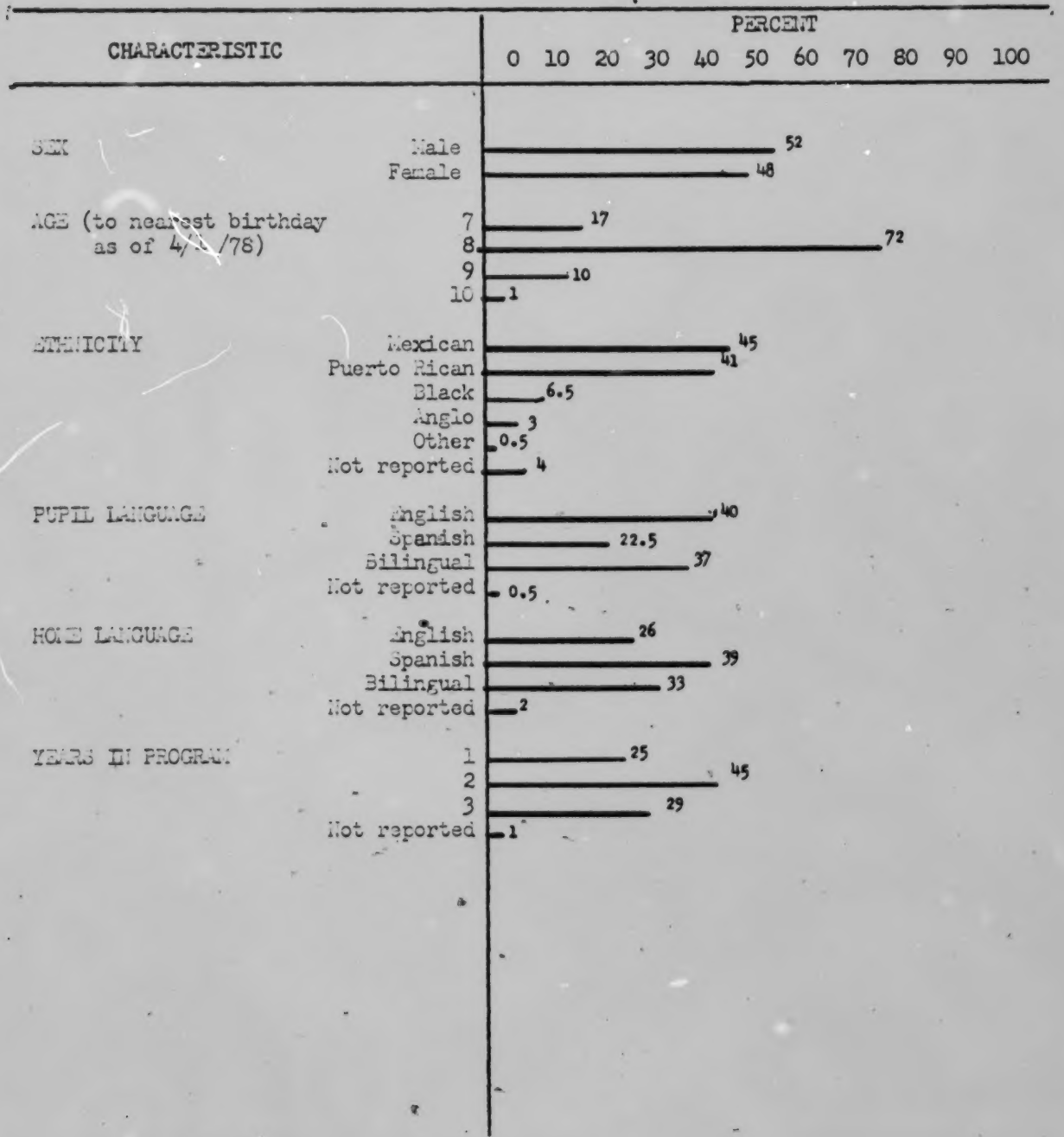
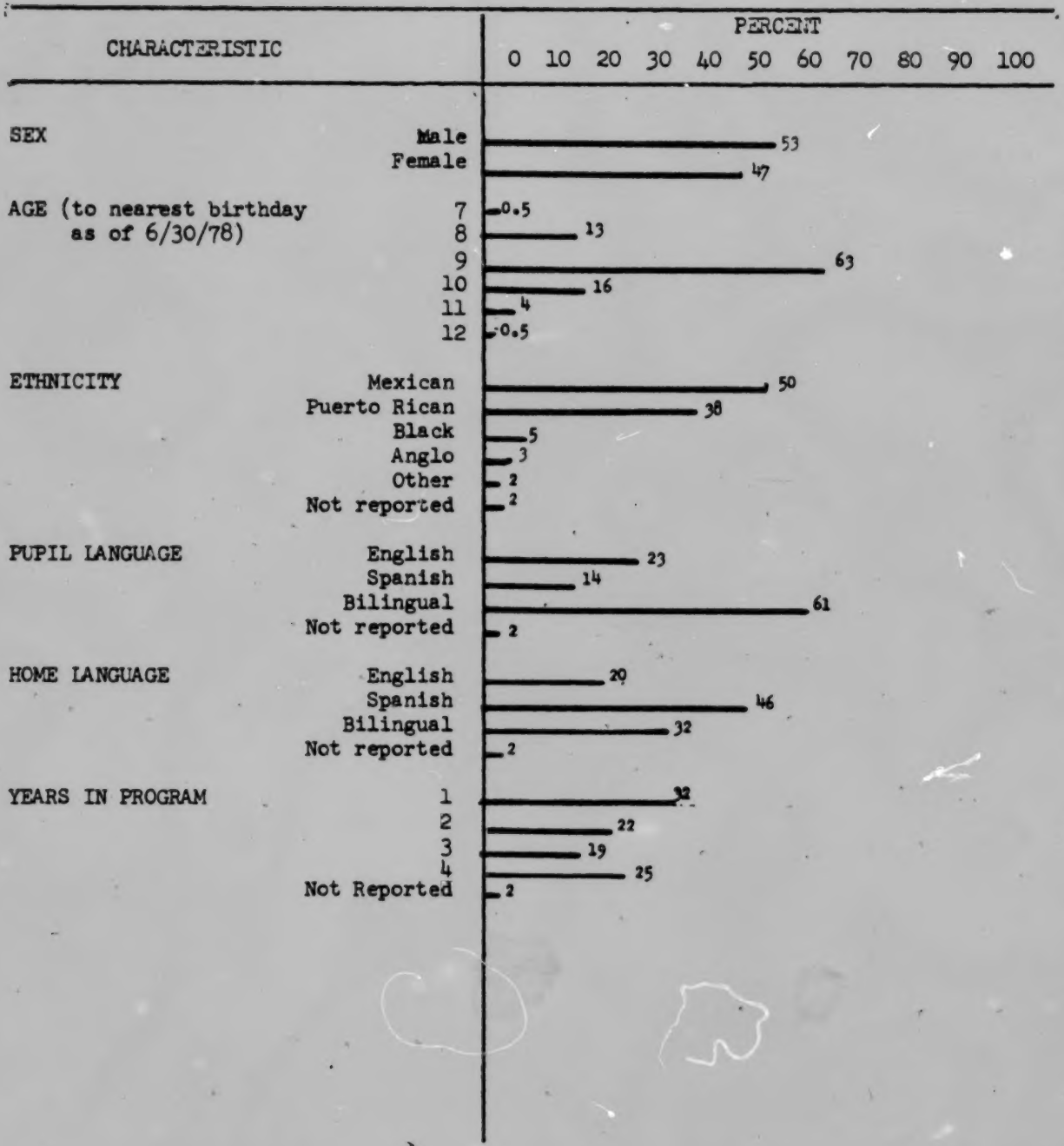


FIGURE 5. UPPER PRIMARY PUPIL DATA
N = 191



Enrollment in ESEA Title I programs provided special help to pupils selected by the teacher as having the greatest educational needs, as shown in Table 2.

TABLE 2

TITLE I ENROLLMENT OF TITLE VII PUPILS

	NUMBERS ENROLLED			
	Kinder-garten	Lower Primary	Middle Primary	Upper Primary
Kindergarten Readiness	9			
Math	1	17	25	25
Reading	1	24	44	68
Speech		3	2	5
Sensory Motor Supportive Services	3	3	1	2

Pupils enrolled in more than one Title I program numbered one in kindergarten, 19 in lower primary, 25 in middle primary, and 31 in upper primary. Pupils enrolled in English-as-a-Second-Language classes numbered 23 in lower primary, 11 in middle primary, and eight in upper primary.

Secondary Program

Bilingual secondary subjects, which originated with ESEA Title VII funds and are now part of the Milwaukee Public Schools' program, include social studies, economics, and language courses.

Schools and innovative courses offered in the ESEA Title VII Bilingual Program were:

TABLE 3

BILINGUAL PROGRAM SECONDARY SCHOOLS

SCHOOL	GRADE LEVEL	ENGLISH FOR LATINOS	TYPING I	TYPING II
Kosciuszko Junior	7-9	X		
Lincoln Junior-Senior	7-9		X	X
South Division	10-12		X	X
Wells Junior	7-9	X		
West Division	9-12	X	X	X

The secondary Title VII program served 186 pupils at the following grade levels:

Grade Level	7	8	9	10	11	12
Enrollment	35	44	46	51	22	12

The rate of attrition was 25 percent. Thirty-three percent were of Mexican background, 51 percent Puerto Rican, two percent other Spanish, and 14 percent not reported.

One hundred forty-seven were enrolled in English for Latinos and 59 in Typing I and II. Twenty-four of the 186 took more than one of the three Title

VII courses. Fifty-one percent of the students were in their first year in the Title VII Bilingual Program, 16 percent in their second year, 13 percent in their third year, and 20 percent did not report their status. Ten percent were English-dominant, 14 percent Spanish-dominant, 74 percent bilingual, and two percent were not reported. Their homes were three percent English, 37 percent Spanish, 55 percent bilingual, and five percent were not reported. These data are illustrated in Figure 6.

Of the 186 enrolled, 25 percent left the program. Of these, two percent moved out of town, five percent moved to Puerto Rico or Mexico, one percent changed to another school, ten percent dropped the project, four percent left the system, and four percent left and re-entered the program (Table 1).

FIGURE 6. SECONDARY STUDENT DATA

N = 147 English for Latinos ——————

N = 46 Typing I & Typing II - - - - - -

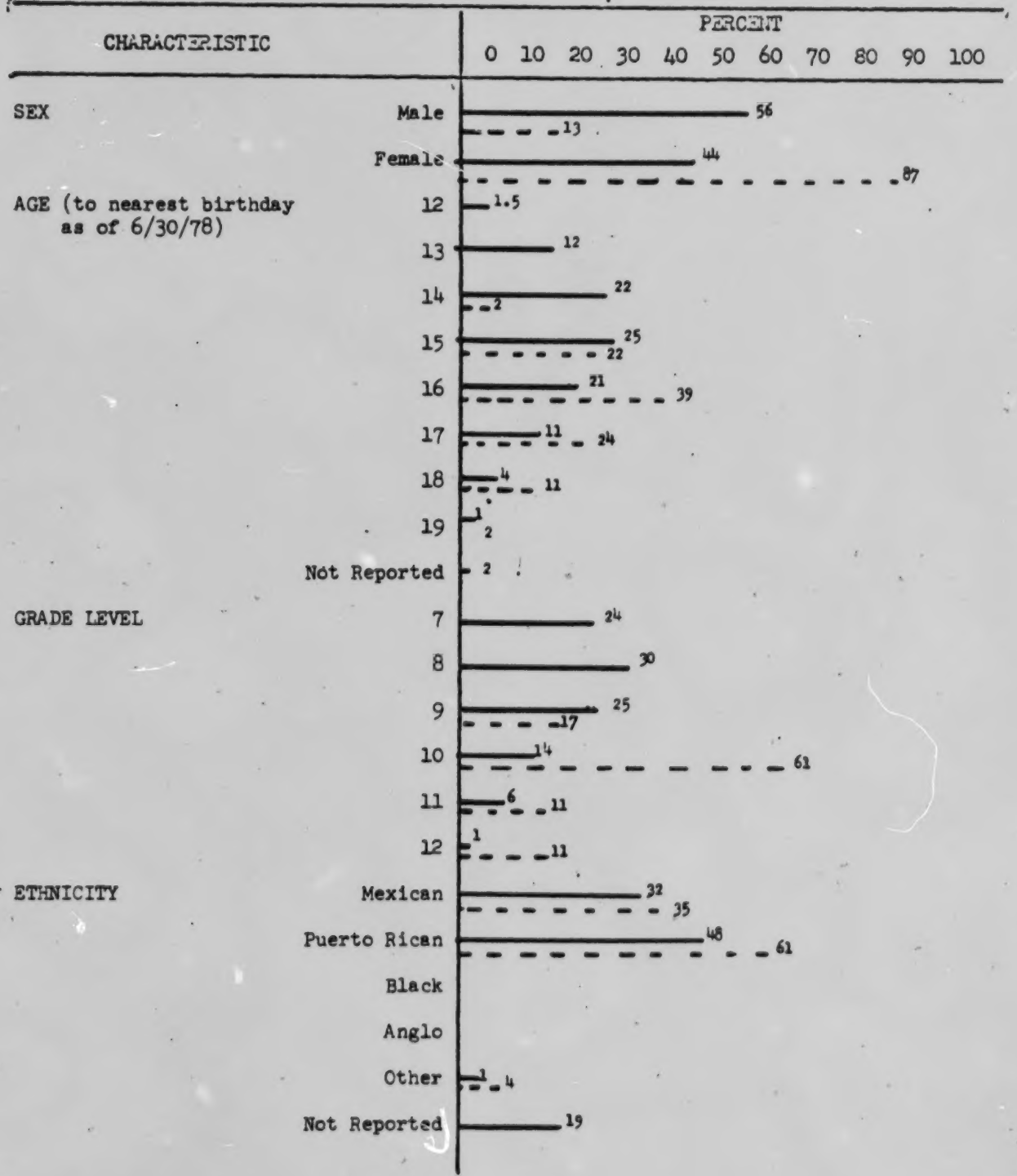
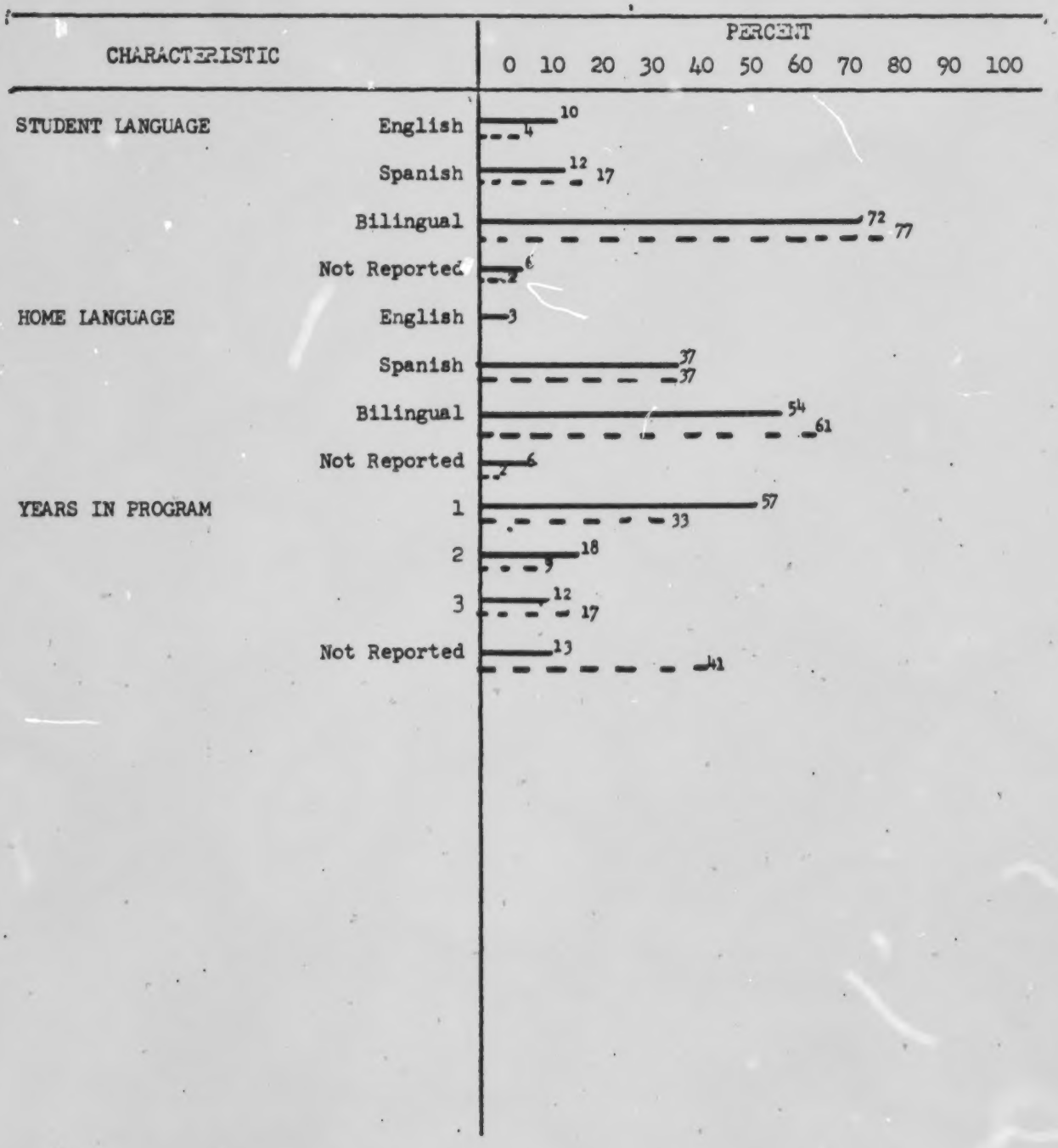


FIGURE 6 (Cont'd)

N = 147 English for Latinos _____

N = 46 Typing I & Typing II - - - - - -



EVALUATION OF ACHIEVEMENT

Evaluation Design

Types of Studies

Achievement

Evaluation objectives and expected level of pupil achievement were defined by the Bilingual Program supervisory staff and the evaluator. Achievement was measured by pre and/or post tests and contrasted with local or outside comparison groups when possible.

Attitude

In the spring, pupils were surveyed on attitude toward school. Parents were questioned about program effects as related to goals.

Special Studies

Additional studies related to the Title VII evaluation were:

-- Continuation of a system for rating the cultural relevance of test instruments for Hispanic students

-- A survey of the Milwaukee Public Schools to identify pupils whose dominant or home language was other than English to determine pupils eligible for bilingual education

-- Teacher reports regarding classroom methods, materials, and problems

-- Continued development of a test of Spanish reading comprehension by Dr. Oscar Ozete, University of Wisconsin-Madison

-- Field studies of new bilingual tests

-- Participation in a pilot study of a Spanish edition of the Comprehensive Tests of Basic Skills, Levels 1, 2, and 3, for CTB/McGraw-Hill

Procedures

Classroom teachers did most of the achievement and some attitude testing. The remainder was done by special bilingual testers.

The .01 level of confidence was used in tests of statistical significance of difference between program and comparison group mean scores to indicate a 99 percent probability that obtained differences were not the result of chance factors. However, data should be interpreted in the light of possible bias because of comparisons with regular classes taught in English only and some cases of incomplete data.

Methods, materials, and problems were reported by teachers at an inservice session.

Local translations of English instruments were developed by native Spanish-speaking staff persons with the publisher's permission. Mexican/Puerto Rican vocabulary alternatives were included.

Comparison groups were not available for Spanish language arts, which was taught only in the Bilingual Program.

The following section presents teacher reports of the processes, methods, materials, problems and achievements, plus the objectives, evaluation designs,

and findings. "Pupil Language" and "Home Language" represent classroom teacher ratings.

The upper-primary comparison group included 54 Spanish-surnamed pupils in the Bilingual Program schools. Of the 54, 30 were male and 24 female. As in the program group, the majority of comparison pupils (59 percent) were nine years old at the end of June 1978.

Primary Evaluation

Kindergarten

Process

Kindergarten enrollment was 155.

Kindergarten schedules varied in length of school day and, therefore, in teacher responsibilities:

Half Day (One session)	Kagel 27th Street	Bilingual pupils a.m. Regular class p.m.
Half Day (Two sessions)	Allen-Field Longfellow	Different bilingual groups a.m. and p.m.
All Day	Pierce Vieau	Same group all day
No Program	Holmes	

Longfellow's kindergarten was established in Fall 1977 in response to parental requests. The absence of a bilingual kindergarten at Holmes School meant that Spanish-dominant children would enter the bilingual first grade having been taught readiness skills in English rather than their mother tongue. Because program practice based on educational research prescribed the learning of initial reading skills in the mother tongue, the absence of a bilingual kindergarten imposed linguistic hurdles for first-grade pupils and their teachers.

The curriculum included reading readiness, mathematics, science, social studies, art, music, and second language arts. All were taught bilingually. Figure 2 describes pupil sex, age, ethnicity, language, home language, and language dominance categories.

Methods

Pupils varied linguistically from Spanish monolingual to bilingual to English monolingual. The James Language Dominance Test, administered in September, identified pupils' language backgrounds for proper grouping. Kindergarten pupils were:

28% Spanish-Dominant

10% Bilingual with Spanish as a Home Language

25% Bilingual with Spanish and English as a Home Language

10% English-Dominant/Bilingual in Comprehension

24% English-Dominant

3% Not Reported

Reading readiness and other subjects were taught in the child's first language. Meanwhile, second-language aural/oral skills were introduced.

Kindergarten pupils qualified for ESEA Title I programs providing special help to the educationally disadvantaged by scoring at or below the lowest quartile of national norms on the Tests of Basic Experiences, General Concepts. Nine were in extended kindergarten, one in math, and one in speech. Of these, three received supportive services.

Teachers differed in methods. Some taught the group as a whole bilingually, some divided the class into language groups, and some used both methods plus individualized instruction. Methods were partially determined by the type and quantity of available assistance from aides or student teachers.

Materials

English reading readiness materials included:

Sounds and Letters, Ginn & Co.

Peabody Kit

Early Reading Kit, Milton-Bradley Co.

Ideal Reading System Charts

Language Master

Teacher-made materials

MPS Bilingual Curriculum Guides

Spanish materials included Spanish Curricula Development Center products and teacher translations of English books.

Problems

1) Many children entered without basic kindergarten readiness skills, such as ability to manipulate crayons.

2) The classroom at Vieau was too small to incorporate activity centers.

3) Spanish-dominant pupils identified as eligible for Title I remedial classes were taught pre-reading skills in English in the Title I centers at Allen-Field and Vieau and in Spanish in their classrooms. This was a source of confusion for pupils and teachers. Other schools had bilingual Title I teachers.

4) The curriculum could not be covered in the half-day program.

5) There was a lack of books for Spanish reading readiness.

Achievements

1) Group counseling and sensory-motor training by psychologists

2) Parent follow-through in helping child after one teacher demonstrated what to do initially by home visits and then by sending suggestions

3) Assistance by parent and student volunteers in some classes

Objectives

Readiness: At the end of kindergarten, Bilingual Program pupils will demonstrate readiness for first-grade work by their performance on the Metropolitan Readiness Tests administered in the child's dominant language, English or Spanish.

The Bilingual Program group mean total score will equal or exceed the comparison group mean total score.

Mathematics: Kindergarten Bilingual Program pupils will demonstrate their mathematical proficiency by their performance on the Quantitative Language Subtest of the Metropolitan Readiness Tests with English or Spanish instructions.

Program group mean scores will equal or exceed comparison group mean scores.

Evaluation Design

As part of the City-Wide Testing Program, kindergarten pupils were administered the Metropolitan Readiness Tests (MRT), Level I or II, in May. Translation for Spanish speakers was developed with the publisher's permission for all subtests except Rhyming, Level I, and Beginning Consonants and Sound-Letter Correspondence, Level II, which did not lend themselves to linguistic translation. Therefore, the Pre-Reading Skills Composite and Total Scores could not be computed for those tested with Spanish instructions. Bilingual Program

performance of pupils tested in English was compared with that of non-program Spanish-surnamed kindergarten pupils in program schools. Special end-of-kindergarten norms were extrapolated from national norms.

Findings

1) Metropolitan Readiness Tests, Readiness Objective

Level I

Results are shown in Tables 4 and 5.

Within-Program Comparisons

One hundred and four pupils were tested, 55 with English instructions and 49 with Spanish instructions.

a. Because teachers judged the Spanish version valid, English and Spanish groups were compared. In 1977, Spanish-dominant pupil performance was significantly higher than English-dominant on the visual and language test batteries. As in 1976, the 1978 groups did not differ, Table 4.

b. There was no significant difference on the Pre-Reading Skills Composite between pupils enrolled in Title I and those not enrolled, Table 5.

c. In the past, pupils in the half-day kindergartens scored higher than those in the all-day kindergartens. Length of school day made no difference in 1978, Table 5.

d. There was no significant difference between girls and boys on the Pre-Reading Skills Composite, Table 5.

Between-Program Comparisons

a. As in 1976 and 1977, Bilingual Program pupil scores did not differ significantly from those of Spanish-surnamed pupils in regular kindergarten classes at the same schools.

b. On national norms, both Bilingual Program pupils and the comparison group scored the third stanine (low) on the Pre-Reading Skills Composite. Bilingual Program pupils fell in the fourth stanine (average) in 1977.

TABLE 4

PERFORMANCE OF BILINGUAL PROGRAM PUPILS
ON THE METROPOLITAN READINESS TESTS
LEVEL I, MAY 1978

	NUMBER OF PUPILS	VISUAL SKILLS 25 items		LANGUAGE SKILLS 26 items		AUDITORY MEMORY 12 items		QUANTITATIVE LANGUAGE 11 items	
		$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
English Instructions	55	19.4	4.7	18.3	4.2	9.2	2.2	7.5	2.2
Spanish Instructions	49	18.8	4.9	17.9	4.6	8.7	2.2	7.3	2.4
Bilingual (English or Spanish Instructions)	104	19.1	4.8	18.1	4.4	8.9	2.4	7.4	2.2
Comparison Group	45	18.9	3.9	17.8	4.2	8.5	2.2	7.7	2.3
t		0.24		0.32		1.27		0.85	

TABLE 5

KINDERGARTEN PERFORMANCE ON THE PRE-READING SKILLS COMPOSITE
METROPOLITAN READINESS TESTS, LEVEL I, MAY 1978

GROUP	NUMBER OF PUPILS	$\bar{x}$	SD	t
Bilingual	45	52.0	12.1	1.38
Comparison	80	54.7	9.1	
Bilingual:				
Male	42	53.3	12.8	1.00
Female	38	50.6	11.3	
Bilingual:				
All-Day	24	50.9	12.5	0.53
Half-Day	56	52.5	12.1	
Allen-Field Bilingual:				
Title I	9	61.1	4.5	0.53
Non-Title I	6	60.8	12.4	

Level II

More pupils, a total of 43, were given the Level II test in 1978, 14 with a newly-developed Spanish translation of test instructions (excepting the Beginning Consonants Subtest).

Within-Program Comparisons

a. Pupils in all-day kindergarten scored significantly higher than those in half-day kindergarten on the Pre-Reading Skills Composite, Table 7.

b. There was no difference between boys and girls, Table 7.

Between-Program Comparisons

a. There was no difference between the English-tested or combined English- and Spanish-tested Bilingual Program and the comparison group in any of the skills areas. Both groups were average (fifth stanine) on national norms, Table 6.

2) Metropolitan Readiness Tests, Mathematics

There were no differences between bilingual and comparison groups in Quantitative Concepts or Quantitative Operations. Both groups were average (fifth stanine) on national norms, Table 6.

The Quantitative Subtest of the Metropolitan Readiness Tests "measures an understanding of certain basic concepts such as size, shape, and number/quantity relationships". Bilingual Program pupils achieved the objective by equalling the performance of the comparison group, Table 6.

TABLE 6

KINDERGARTEN PERFORMANCE ON THE
METROPOLITAN READINESS TESTS, SUBTESTS
LEVEL II, MAY 1978

GROUP	NUMBER OF PUPILS	AUDITORY SKILLS 29 items $\bar{x}$	AUDITORY SKILLS 29 items SD	NUMBER OF PUPILS	VISUAL SKILLS 26 items $\bar{x}$	VISUAL SKILLS 26 items SD	LANGUAGE SKILLS 18 items $\bar{x}$	LANGUAGE SKILLS 18 items SD	QUANTITATIVE CONCEPTS 9 items $\bar{x}$	QUANTITATIVE CONCEPTS 9 items SD	QUANTITATIVE OPERATIONS 15 items $\bar{x}$	QUANTITATIVE OPERATIONS 15 items SD
Bilingual:												
English Instructions	29	19.9	7.8	36	21.3	9.9	12.9	2.9	5.6	2.1	10.7	3.3
Spanish Instructions				7	19.7	4.6	13.7	3.7	5.3	2.1	9.7	2.6
Total Bilingual (English and Spanish)	*29	19.9	7.8	43	21.0	9.3	13.0	3.1	5.6	2.1	10.5	3.2
Comparison	12	18.5	5.9	13	18.8	3.7	12.0	2.9	5.2	1.7	9.7	2.5
t		0.64			1.29		1.05		0.76		0.99	

* Spanish speakers not tested

TABLE 7

KINDERGARTEN PERFORMANCE ON THE
PRE-READING SKILLS COMPOSITE
METROPOLITAN READINESS TESTS
LEVEL II, MAY 1978

GROUP	NUMBER OF PUPILS	$\bar{x}$	SD	t
Bilingual	29	52.1	14.4	1.05
Comparison	12	48.6	7.1	
Bilingual:				
Male	15	51.5	15.1	0.25
Female	14	52.9	14.2	
Bilingual:				
All-Day	14	64.6*	4.7	4.98
Half-Day	22	48.2	14.2	

* Difference between means is significant beyond the .01 level.

Discussion

At Levels I and II, the readiness objective was achieved because Bilingual Program pupil performance equalled that of the Spanish-surnamed comparison group. However, pupils who had the easier Level I test did below average work whether in the Bilingual Program or a regular classroom, whether in school half the day or all day. Those in both programs whose skill level enabled them to take the Level II test ranked with average pupils on national norms. These pupils benefitted from the all-day kindergarten, whereas Level I pupils did not. Perhaps such pupils could benefit from an opportunity to acquire kindergarten readiness skills at a preschool level. Age was not a contributing factor, as there was no significant difference in age. Both half-day and all-day Level II children averaged 6.1 years in June.

This finding suggests that those pupils who had acquired the necessary fundamentals in English or Spanish were able to build upon them during the extra half day.

English Reading

Process

Four main approaches to teaching English to the non-English-dominant pupil have been described in the literature(2). The Milwaukee Bilingual Program uses the Native Literacy Approach, wherein the child is taught to read in his native language while learning oral English. Learning to read English follows mastery of oral English skills. The alternatives are: the Dialect Approach, which teaches reading in the child's non-standard dialect; the Standard Language Approach, in which the child is taught English as a second language prior to learning English reading; and the Common Core Approach, which presents standard English reading on a particular core content such as science.

English reading was taught daily in from two to six ability groups and from 45 minutes to two hours per class. Most classes devoted the entire morning to reading in the two languages. Some spent less time because pupils had to leave the classroom to attend Title I or other classes, such as gym. Classroom aides helped individual and small groups with lessons presented by the teacher.

Spanish-dominant pupils started reading English as a second language after they reached Level 8 in Spanish reading and could understand and speak English, usually in middle or upper primary. The problem of multiple reading level groups was partially solved by some teachers by team teaching certain reading "levels" and incorporating a variety of textbook series at Levels 3 through 12.

Materials

Bilingual classes followed their school's reading program, which varied from one to several texts. Some lower-primary teachers also used experience charts, picture cards, Peabody Kit, and "First Experience with Consonants" by Instructo. The Milwaukee Public Schools' Reading Continuum was followed at all levels.

Problems

Lower Primary

1) Multiple grade levels in some classes
2) Large blocks of time were needed to teach reading in two languages.
3) Pupils lacked readiness skills.
4) Kindergarten pupils forgot initial sounds over the summer -- needed lengthy review in lower primary.
5) Wide range of pupil ability
6) Teachers without aides needed to assign too much independent work.

Middle Primary

1) Some pupils started at readiness levels.

Upper Primary

1) Where team teaching was not practiced, there was insufficient time for some teachers to work with individuals.
2) Some pupils were non-readers.

Achievements

1) Texts were rated "good".

2) Pupils motivated each other to read a second language.

3) Aides were helpful with reading groups.

Objective

English Reading: At the end of each primary grade, English-dominant or bilingual pupils in the program will demonstrate proficiency in English reading by their performance on the reading subtests of the Metropolitan Achievement Tests.

The Bilingual Program group mean total score will equal or exceed the comparison group mean total score at lower, middle, and upper primary.

At lower primary and middle primary, Spanish-dominant pupils will not be tested.

Spanish-dominant pupils who have been in the program and become bilingual will be included at upper primary.

Evaluation Design

The James Language Dominance Test was administered in September to lower-primary pupils who had not been tested in kindergarten. Pupils were grouped by dominant language for beginning reading. Forty-one percent of lower-primary pupils were English-dominant (Categories 4 and 5).

1) Each pupil's English reading level was recorded in September and June.

2) In May, the reading subtests of the Metropolitan Achievement Tests, Primer or Primary I, were given to pupils in Title I programs.

3) Upper-primary pupils took the reading subtests of the Metropolitan Achievement Tests, Elementary, Form F, as part of the City-Wide Testing Program in May.

Findings

1) Table 8 shows mean pre/post English reading levels and distributions by grade level.

TABLE 8

BILINGUAL PROGRAM MEAN ENGLISH READING LEVELS
SEPTEMBER 1977 AND JUNE 1978

GRADE LEVEL	MEAN READING LEVELS September N	$\bar{x}$	SD	June N	$\bar{x}$	SD	AVERAGE GAIN
Lower Primary	76	1.5	0.8	100	4.7	1.7	3.2
Middle Primary	113	4.9	4.5	149	6.9	6.2	2.0
Upper Primary/ Extended Primary	153	6.3	2.0	163	8.1	2.4	1.8

2) Lower-primary Bilingual Program pupils tested in Title I Readiness and middle-primary in Title I Reading Programs scored in the same stanines as the total Title I groups, below average in reading. Upper-primary Title I pupils scored higher than the total Title I group, but both groups were below average on national norms (Table 9).

TABLE 9

COMPARISON OF BILINGUAL PROGRAM
TITLE I PUPILS WITH TOTAL TITLE I
METROPOLITAN ACHIEVEMENT TESTS, READING

TEST	GRADE LEVEL	TITLE I READING GROUP	TOTAL READING N	$\bar{x}$	S
Primer	Lower Primary	Bilingual Title I	19	18.8	3
		Total Title I Readiness	218	23.1	3
Primary I	Middle Primary	Bilingual Title I	47	46.5	2
		Total Title I Reading	478	42.0*	2
Elementary	Upper Primary	Bilingual Title I	52	31.4	3
		Total Title I Reading	433	23.0*	2

* Approximated from standard score means

3) Upper-primary pupils achieved the English reading objective by scoring significantly higher than the Spanish-surnamed comparison on Word Knowledge and Total Reading, as shown in Table 10.

Compared with national norms on Total Reading, the Bilingual group ranked average, the Spanish-Surnamed Comparison low, and the MPS Total average.

TABLE 10

UPPER-PRIMARY READING PERFORMANCE
METROPOLITAN ACHIEVEMENT TESTS, ELEMENTARY F, MAY 1978

GROUP	WORD KNOWLEDGE				READING				TOTAL READING			
	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD		N	$\bar{x}$	SD	t
Bilingual	134	22.8	10.6	3.47*	134	16.7	6.8	1.31	134	39.4	16.3	2.84*
Spanish-Surnamed Comparison	54	17.7	8.2		54	15.4	5.5		54	33.1	12.8	
MPS Total	7,311	24.9	11.7		7,306	19.3	8.4		7,257	44.4	19.2	3.50*

* Difference is significant at the .01 level of confidence.

Discussion

Gains in pre/post reading levels demonstrate progress in English reading at all grade levels. Upper-primary figures include Spanish-dominant beginning readers of English whose lower levels result in lower overall upper-primary gains.

Bilingual Program pupils given special instruction in ESEA Title I reading classes scored as well as or better than the total Title I groups on the Metropolitan Achievement Tests Reading Subtests.

By the end of upper primary, Bilingual Program pupils were better English readers than their Spanish-surnamed peers and came close to the city-wide average on the Metropolitan Achievement Tests, elementary level, Total Reading tests.

Bilingual teachers and pupils worked together to achieve significant progress in laying a foundation on which to build increasingly complex English reading skills.

Spanish Reading

Process

Spanish monolingual pupils and bilingual pupils were taught initial reading skills in Spanish unless the child had been taught pre-reading skills in English. English-dominant and some bilinguals learned to read Spanish as a second language after they attained Level 8 in English reading and could understand and speak Spanish, except when the child showed interest in the second language. Teacher judgment of student readiness was an important factor in the introduction of Spanish reading.

Methods

Pupils were grouped by reading levels as in English reading. Listening, speaking, and writing were integrated with the teaching of reading. Spanish was taught in a variety of ways: through other subjects, games and songs, team-teaching techniques, or the alternative use of English and Spanish as the daily classroom language.

Materials

A Cada Paso

Amanecer

Aprendemos a Leer

Santillana and Laidlaw series

Spanish Curricula Development Center

Leo y Escribo - Guatemala

Midwest Materials Development Center ditto sheets

"Método de Escritura", Donars, Loveland, Colorado

Flash cards

El Alfabeto, Continental Press

Kits, flash cards, charts

"Preparandose a Leer", Houghton-Mifflin

Empezando a Leer

Problems

1) Multi-ability-level classes

2) Frequent and prolonged pupil absences

3) Time conflicts with specialist teachers.

4) Poor binding of Spanish textbooks

5) All Spanish materials are too expensive.

6) Insufficient aide time during first semester

7) Children placed according to age only.

8) Lack of time to teach in two languages

9) Limited vocabulary of entering pupils

10) Unsuccessful team-teaching attempts

11) Multi-grade-level classes

12) Guidelines needed for teaching Spanish as a second language.

13) Materials needed for teaching Spanish as a second language.

14) Spanish-dominant lower-primary pupils who joined an after-school English reading program became confused.

15) Children coming from monolingual classes without any proper preparation.

16) Some English-dominant children read with no comprehension.

17) Some books were out of place on the list of Spanish reading levels (e.g., Level 6 book was too difficult).

Achievements

1) Spanish materials were good.

2) Supervising teacher was helpful.

3) Self-concepts of children have improved.

4) Parents understand Spanish and help children in their homework.

5) Great interest of English-dominant children in learning to read Spanish

6) Positive attitude toward reading which was created by success in learning to read Spanish transferred to the learning of English reading

Objectives

Spanish Reading:

1) At the end of middle and upper primary, Spanish-dominant pupils will demonstrate proficiency in Spanish reading by averaging 75 percent correct on Level 2 at middle primary and Level 3 at upper

primary on tests compiled by the System for Objectives-Based Evaluation of Reading -- Spanish (SOBER). English-dominant will score 50 percent on the Level 1 test.

2) By the end of upper primary, Spanish-dominant pupils who have been in the program since lower primary will average 75 percent correct and English-dominant will average 50 percent correct on the Ozete Modified Cloze Test of Spanish Reading Comprehension, a cloze test variation.

Evaluation Design

1) SOBER Español, a test of Spanish reading skills based on objectives selected by teachers, was administered to middle- and upper-primary pupils to assist teachers in grouping according to need. Test 1, 2, or 3 was given, based on the child's reading level. Use of SOBER Español was optional pending test revisions to be published in Fall 1978.

2) The Ozete Modified Cloze Test of Spanish Comprehension was administered to upper-primary pupils in June. Dr. Oscar Ozete, Department of Spanish and Portuguese, University of Wisconsin-Madison, developed the procedure in 1976 for use in the Milwaukee Public Schools. The Modified Cloze Test, a variation of the cloze procedure, was based on content selected by the elementary supervising teacher.

   All upper-primary pupils were tested. Further information about the Ozete test is in the Additional Studies section, Page 111.

3) Pre/post Spanish reading levels were recorded.

There were no comparison groups available because Spanish reading was not taught outside the Bilingual Program.

Findings

1) SOBER Español

   Administration of SOBER Español was optional, resulting in a small sample. Four teachers at three schools used SOBER Español. Table 11 indicates results by grade level. Of the 51 pupils tested, 23 achieved

the criterion of 75 percent correct.

Pages 141 through 146, Appendix, report the objective associated with each test item and the percent who answered correctly, data which pinpoint skills needing further development.

TABLE 11

PERFORMANCE OF BILINGUAL PROGRAM PUPILS
ON SOBER ESPANOL, 1977-1978

GRADE LEVEL	MONTH	TEST 1 Dominant Language				TEST 2 Dominant Language				TEST 3 Dominant Language			
		Eng		Span		Eng		Span		Eng		Span	
		*N	PA	N	PA	N	PA	N	PA	N	PA	N	PA
LP	May	1	100	9	89			1	0				
MP	May			1	100	5	20	13	23				
UP	December	3	0	6	67	_		11	36			1	100
Total		4		16		5		25				1	

* N = Number of Pupils, PA = Percent Achievement

2) Modified Cloze Test

All upper-primary pupils took two forms of the Modified Cloze Test of Spanish Reading Comprehension based on passages selected by the Elementary Supervising Teacher. Pupils selected one of three choices for every fifth word, the correct word and two distractors. In Form A, the distractors were different parts of speech selected from the passage. In Form B, the distractors were the same part of speech selected from Spanish word lists of equal difficulty. Pupils were tested in June by bilingual testers.

According to the objective, Spanish-dominant pupils who had been in the program since lower primary (three or four years) would average 75 percent correct (score 15 or more on the 20-item test). English-dominant pupils in the program since lower primary would average 50 percent correct (score ten or more).

As reported in Table 12, neither group achieved its criterion. Average scores on the two forms were 8.9 and 10.3 for Spanish-dominant pupils. Spanish-dominant pupils who had been in the program one or two years scored nearly as well.

English-dominant pupils in the program three or four years scored 3.9 and 5.1 on the two forms, lower than those who were in their first or second year in the Bilingual Program. The percent of Spanish- and

English-dominant one/two-year pupils who achieved the criterion score equalled or exceeded the percent of three/four-year pupils who achieved the criterion score.

TABLE 12

PERFORMANCE OF UPPER-PRIMARY PUPILS ON THE MODIFIED CLOZE TEST OF SPANISH READING COMPREHENSION

20 items

YEARS IN PROGRAM	DOMINANT LANGUAGE	NUMBER OF PUPILS	CRITERION SCORE	TEST FORM	MEAN RAW SCORE	CRITERION ACHIEVED N	CRITERION ACHIEVED %
3-4	Spanish	57	15	A	10.3	15	27
				B	8.9	11	20
	English	15	10	A	5.1	2	13
				B	3.9	0	0
1-2	Spanish	76	15	A	9.0	21	27
				B	7.9	13	17
	English	17	10	A	6.8	5	29
				B	4.9	2	12

3) Spanish Reading Levels

Table 13 shows pre/post Spanish reading levels. Thirty-two percent lower-primary, 40 percent middle-primary, and 23 percent upper-primary pupils were English-dominant, the remainder were Spanish-dominant or bilingual.

TABLE 13

BILINGUAL PROGRAM MEAN SPANISH READING LEVELS
SEPTEMBER 1977 AND JUNE 1978

GRADE LEVEL	MEAN READING LEVELS September N	$\bar{x}$	SD	June N	$\bar{x}$	SD	AVERAGE GAIN
Lower Primary	43	1.3	0.4	73	5.2	1.5	3.9
Middle Primary	66	4.4	1.9	96	7.6	8.9	3.2
Upper Primary/ Extended Primary	96	6.3	2.3	149	6.7	2.9	0.4

As in English, progress through reading levels was faster at lower grade levels.

Discussion

Performance of the small sample tested with SOBER Español furnished teachers with information related to specific needs of individual pupils in Spanish grammar at three reading levels in addition to identifying those who were ready to advance.

Modified Cloze Test results revealed that Spanish achievement is not necessarily related to language dominance or to time in the Bilingual Program. Performance which fell short of expectations may indicate that the passage selected was too difficult.

Reading levels increased by grade level. Gain per year decreased by grade level. Although upper-primary pupils made minimal reading level gains, 53 more Spanish readers were reported in June than in September. These beginning readers account for minimal reading level gains.

Bilingual Language Skills

The first goal of the elementary Bilingual Program is "To achieve the basic skills of understanding, speaking, reading, and writing two languages, one of which is English". Two methods were used to assess progress toward this goal: administration of the Language Assessment Battery and records of pupils' pre/post reading levels in English and Spanish.

Language Assessment Battery

The Language Assessment Battery (LAB) became available in Fall 1977. It was developed by the Office of Educational Evaluation, Board of Education of the City of New York, and published by Houghton-Mifflin Co. English and Spanish tests on three levels, K-12, assessed specific listening, speaking, reading, and writing learning objectives.

Evaluation Design

Middle- and upper-primary pupils were pre/post tested according to a format developed by their teachers during a pre-service workshop, Tables 14 and 15.

Middle-primary pupils were tested individually on Level I. Upper-primary pupils were tested on Level II which, with the exception of the individually-administered speaking subtests, were group tests.

TABLE 14

LANGUAGE ASSESSMENT BATTERY
MIDDLE PRIMARY, LEVEL I

SUBTEST	NUMBER OF ITEMS	PRETEST - OCTOBER Pupils Tested	Language	POSTTEST - MAY Pupils Tested	Language
Listening and Speaking	20	All	English and Spanish	Those scoring 11 or less on pre	English and/or Spanish
Reading	10	English-dominant	English	Total English score, 34 or less*	English
Writing	10	Spanish-dominant	Spanish	Total Spanish score, 27 or less*	Spanish

* 20th percentile on New York City norms

Except for the Speaking Test, the Level II tests were group-administered.

TABLE 15

LANGUAGE ASSESSMENT BATTERY
UPPER PRIMARY, LEVEL II

SUBTEST	NUMBER OF ITEMS	PRETEST - OCTOBER Pupils Tested	Language	POSTTEST - MAY Pupils Tested	Language
Listening	30	All	English and Spanish	Not given	
Speaking	14	All	English and Spanish	Those scoring 10 or less on pre	English and/or Spanish
Reading	28	Not given		All	English and Spanish
Writing	20	Not given		All	English and Spanish

Because results of the 1977 equating study for the English and Spanish versions were not available, New York City norms for monolingual English or monolingual Spanish speakers were used. The LAB English tests were constructed so that 80 percent of the New York City monolingual English norm group answered the item correctly. ". . . the LAB English is most efficacious in identifying the student who is not able to participate effectively in the English learning situation."(3) According to the LAB Technical Manual, students whose LAB English total score was at or above the 20th percentile on New York norms are considered "effective" in the language. Future publication of a special equating study will enable direct comparisons between the English and Spanish versions of the LAB. The Milwaukee Public Schools participated in the national study in 1976.

Middle-primary pupils were pretested in listening and speaking in both languages, reading and writing in their dominant language. Only low scorers ("not effective" in the language) were posttested.

Upper-primary pupils were pretested in listening and speaking in both languages. Reading and writing tests in both languages were administered only at the end of the year because of the item difficulty level.

Teachers administered the pretests. Bilingual testers did the individual posttesting.

Findings

Middle Primary, Level I

Listening and Speaking

All pupils were tested in English and Spanish.

English: One hundred thirty-eight of the 143 pupils pretested scored above the criterion 11 of 20 possible points and were considered proficient. The five "inefficient" pupils ($\bar{x} = 5.6$) were posttested and made significant gains ($\bar{x} = 15.8$) to end the year "proficient" in English Listening and Speaking.

Spanish: One hundred seventeen of the 132 pupils pretested scored above the criterion 11 points and were considered proficient. The 15 "inefficient" pupils ($\bar{x} = 6.9$) were posttested, but the gains ($\bar{x} = 9.9$) did not raise them to the "proficient" category and were not statistically significant. They represented 11 percent of those tested.

Battery Total

Pupils were pretested on the total battery in their first language. The 40-item battery included 20 listening and speaking items, ten reading items, and ten writing items. Those who scored at or below the criterion 20th percentile rank on New York City norms were posttested. Pre and post performance is shown in Table 16. Findings refer to those who scored below the criterion scores for language efficiency on the English or Spanish pretest.

English: Criterion = 35

Of 100 pupils pretested, 42 scored above and 58 below the criterion. Forty of the low scorers were posttested. Average pre/post gains were statistically significant, from 30.3 pre to 35.8 post.

Spanish: Criterion = 27

Of 82 pupils pretested, 52 scored above and 30 below the criterion. Nine of the low scorers were posttested. Although average pre/post gains were not significant (23.1 pre and 29.0 post), these pupils exceeded the criterion on the posttest.

TABLE 16

PUPIL PERFORMANCE
LANGUAGE ASSESSMENT BATTERY
MIDDLE PRIMARY, LEVEL I

SUBTEST	ENGLISH							SPANISH						
	Pre			Post				Pre			Post			
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD	N	$\bar{x}$	SD	t
Listening and Speaking (20 items)														
Total Group	143	18.7	2.8	56	19.1	1.6	5.0***	133	16.5	4.7	36	11.6	5.3	2.6
Low Pretest Group*	5	5.6	3.9	5	15.8	2.3		15	6.9	2.7	15	9.9	3.6	
Battery Score (40 items)														
Total Group	100	34.1	5.9	46	36.1	4.6	6.6***	82	30.5	6.6	9	29.0	6.3	2.7
Low Pretest Group**	40	30.3	2.8	40	35.8	4.5		9	23.1	2.8	9	29.0	6.3	

* Pupils who scored below criterion, 11 or less
** Pupils who scored at or below 20th percentile on pretest, New York City norms
*** Pre/post difference is significant at or beyond the .01 level of confidence.

Upper Primary, Level II

Results are shown in Table 17.

Listening

Pretest only

English: The mean score was 22.2 interpreted as average performance.

Spanish: The mean score was 21.8 interpreted as average performance.

Speaking

Pre/post for low scorers

English: Of the 149 pupils pretested, 68 scored at or below the criterion 11 points ($\bar{x}$ = 78). These pupils, when posttested, made significant gains ($\bar{x}$ = 10.9) and just missed the proficiency criterion.

Spanish: Of the 138 pupils pretested, 71 scored at or below the criterion 11 points ($\bar{x}$ = 6.4). These pupils, when posttested, made significant gains (9.0) but remained "inefficient" in Spanish speaking.

Reading

Posttest only

English: The 152 pupils tested on total English reading averaged 14.7 compared with 18.3 by the New York City norm group of monolingual English third graders, a difference statistically significant at the .01 level of confidence.

Spanish: The 135 pupils tested on total Spanish reading averaged 16.2 compared with 16.8 by the New York City norm group of monolingual Spanish third graders. The difference is not statistically significant.

Writing

Posttest only

English: Pupils averaged 13.9 compared with 15.4 by the New York City monolingual English norm group, a difference significant at the .01 level of confidence.

TABLE 17

PUPIL PERFORMANCE
LANGUAGE ASSESSMENT BATTERY
UPPER PRIMARY, LEVEL II

SUBTEST	ENGLISH							SPANISH						
	Pre			Post				Pre			Post			
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD	N	$\bar{x}$	SD	t
Listening (30 items)	149	22.2	5.0					152	21.8	5.3				
Speaking (14 items)														
Total Group	149	10.3	2.9	81	10.4	2.8	12.3*	138	9.1	4.1	89	8.2	4.4	7.6*
Pre/Post Group	68	7.8	2.1	68	10.9	2.0		71	6.4	3.2	71	9.0	4.2	
Reading (28 items)														
Vocabulary (10)				145	5.6	3.1					133	6.5	2.7	
Comprehension (18)				148	9.6	3.9					134	9.9	4.1	
Total Reading (28)				152	14.7	6.8					135	16.2	6.3	
Writing (20 items)				146	13.9	4.8					132	10.7	5.3	

* Pre/post difference is significant at or beyond the .01 level of confidence.

Spanish: Pupils averaged 10.7 compared with 11.7 by the New York City monolingual Spanish norm group. The difference is not statistically significant.

It should be noted that the New York norm groups were monolingual English or Spanish, whereas the majority of Milwaukee pupils were bilingual.

Because pupils had part of the test in fall and part in spring, there are no total battery scores.

Item Analyses of Pretest Results

Item analyses revealed that, at middle primary, Level II pupils had the greatest difficulty with the writing subtests in both English and Spanish. Writing items required pupils to reproduce letters in response to oral stimuli, to fill in missing letters, to supply the missing word from a choice of four words, and to re-write a sentence of scrambled words.

At upper primary (Level II), the greatest numbers of English and Spanish listening errors were in identifying pairs of words which sounded the same. The most numerous Spanish-speaking errors were in use of the plural past participle as an adjective. The present subjunctive tense verb phrase was missed frequently in both languages. The past tense verb phrase was not well known in English.

The elementary supervising teacher held a workshop on the item analyses findings to identify problem areas for teachers and to suggest teaching methods to improve pupil performance.

Reading Levels

Records of pupil reading levels demonstrate that the goal of acquisition of bilingual reading skills is being met for most of the pupils by the end of upper primary, Table 18.

TABLE 18

AVERAGE READING LEVELS, JUNE 1978

GRADE LEVEL	ENGLISH		SPANISH	
	Number of Pupils	Average Reading Level	Number of Pupils	Average Reading Level
Lower Primary	100	4.7	73	5.2
Middle Primary	149	6.9	96	7.6
Upper Primary	163	8.1	149	6.7

Average English and Spanish reading levels in June were remarkably similar: 0.5 difference at lower primary, 0.7 difference at middle primary, and 1.4 at upper primary. Table 19 illustrates the percent of pupils in English and Spanish reading levels one through twelve.

Milwaukee Public School reading levels one through twelve span kindergarten through upper primary.

TABLE 19

PUPIL READING LEVELS, ENGLISH AND SPANISH
SEPTEMBER 1977 AND JUNE 1978

	GRADE LEVEL	MONTH	NUMBER OF PUPILS	PERCENT AT READING LEVELS													NON-READERS OF LANGUAGE OR NOT REPORTED
				Readiness	1	2	3	4	5	6	7	8	9	10	11	12	
English	Lower Primary	September	180	14	30	5	6	1									44
		June		1	1	8	3	10	19	10		4					44
	Middle Primary	September	181	4	3		11	19	13	11	3		2				34
		June		2		1	4	5	12	22	13	14	4	7			16
	Upper Primary	September	191	6	0.5		8	10	6	18	10	17	8	3			13.5
		June		1			2	7	6	7	8	14	17	12	7	6	13
Spanish	Lower Primary	September	180	15	19	3	2										61
		June		0.5			6	9	7	7	10	2					58.5
	Middle Primary	September	181	10	6		6	3	8	10	4						53
		June		9			1	6	2	17	10	11	4	2			38
	Upper Primary	September	191	14		1	4	13	2	5	7	10	5	4			35
		June		1	5.5		6	10	0.5	7	16	14	3	6	4	6	21

Discussion

The initial use of the Language Assessment Battery provided baseline data for the Milwaukee population.

Bilingual literacy (reading) has been accomplished by the end of upper primary. Average reading levels are impressive, considering that they include pupils for whom English and Spanish are second languages. These findings were confirmed by the Bilingual Resource Team's observation that most pupils are using two languages for meaningful communication.

Mathematics

Process

In general, mathematics was taught in both English and Spanish from 30 to 60 minutes per day. Pupils learned beginning concepts in their dominant language. Middle- and upper-primary classes used two or three textbook levels because of split-level classes or differences in pupil achievement. Some teachers assigned math homework.

Methods

Concepts were taught in several ways:

1) Bilingually to the entire class with aide assistance to pupils grouped by language and ability
2) Grouping by language
3) Grouping by ability, bilingually
4) Bilingually to entire class followed by individual instruction
5) Bilingually to entire class followed by group and individual work
6) Grouping by ability, English
7) Entire class, Spanish or English on alternate days
8) Entire class, English followed by ability groups, assistance with Spanish usage
9) Individualized, English or Spanish on alternate days, monolingual and bilingual students help small groups monolingual
10) Grouping by grade level, Spanish or English on alternate days

Materials

-- Investigating School Mathematics, Books 1, 2, 3, Addison-Wesley Publishing Co., 1973

-- The Random House Mathematics Program, Second Edition, Random House, Inc., 1974

-- Matemática Para la Educación Primaria, Fondo Educativo Interamericano, S.A., 1970, the Spanish edition of Elementary School Mathematics, Addison-Wesley, 1968 edition

-- Spanish word cards, teacher-made

-- Text workbooks

-- ESEA Title I math objectives

-- Calculators for checking work

Teachers translated the English language texts.

Problems

1) Pupils who had no previous schooling and pupils who transferred from regular classrooms increased the range of abilities within the classroom.

2) Difficulty in teaching multi-grade-level classes

3) Texts did not have Spanish editions.

4) Teaching in two languages required twice as much time.

5) One teacher found the text confusing so used selected lessons from it.

6) Some pupils who were assigned to Title I math centers did not need the service. New pupils who needed Title I math services did not receive it because they were not selected for referral in 1977.

7) Word problems in Spanish are needed.

8) Mexican texts were too difficult because they used the metric system.

Achievements

1) In a mixed lower-primary/middle-primary class, middle-primary pupils worked well independently.

2) Spanish version of Addison-Wesley (old edition) was useful for word problems.

Objective

Mathematics: Upper-primary English-speaking pupils will demonstrate their proficiency in concepts and problem-solving, and all pupils will demonstrate their proficiency in computation (English and Spanish instructions) on the Metropolitan Achievement Tests, elementary level.

Program group mean scores will equal or exceed comparison group mean scores.

Evaluation Design

Math subtests of the Metropolitan Achievement Tests, Elementary, Form F, were administered to upper-primary pupils as part of the City-Wide Testing Program. The computation subtest was administered in the pupil's dominant language, English or Spanish. The problem-solving subtest involved English reading and was not given to monolingual Spanish pupils.

The comparison group was composed of Spanish-surnamed pupils in regular classes in the Bilingual Program schools.

Findings

The objective was achieved. At the end of upper primary, the 137 Bilingual Program pupils who were tested scored significantly higher than the Spanish-surnamed comparison group on the Computation Subtest and did not differ on Concepts, Problems, and Total. As shown in Table 20, bilingual ESEA Title I pupils averaged 43.7 on Total Math compared with the 35.0 average (approximated from the standard score mean) for the total Title I group of 479 pupils.

TABLE 20

UPPER-PRIMARY MATHEMATICS ACHIEVEMENT
METROPOLITAN ACHIEVEMENT TESTS, ELEMENTARY, MAY 1978

GROUP	COMPUTATION								CONCEPTS				PROBLEMS				TOTAL MATH			
	English				Spanish															
	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD	t	N	$\bar{x}$	SD	t
Bilingual	137	19.9	7.2	2.01*	47	15.8	5.8	3.92**	135	16.7	7.3	1.62	133	13.5	6.2	1.41	134	50.2	18.7	1.97*
Spanish-Surnamed Comparison	54	17.7	6.7						54	14.8	7.0		54	12.2	5.6		54	44.7	16.8	
MPS	7,307	19.8	7.6						7,294	19.1	8.0		7,293	15.8	7.3		7,199	54.8	21.1	2.81*

* Difference is significant at the .05 level of confidence.
** Difference is significant at the .01 level of confidence.

Discussion

Bilingual Program English-dominant pupils equalled or exceeded their Spanish-surnamed peers in computation. Both Bilingual Program and city-wide performance in total mathematics ranked "average" on national norms. Within the Bilingual Program, pupils who learned mathematics in Spanish did not reach the level of achievement of those taught in English, an outcome which may be related to the lack of Spanish texts reported as a problem by teachers. It is recommended that continuing efforts be made to supply suitable Spanish texts and test instruments for ongoing feedback about pupil progress.

Secondary Evaluation

Title VII served 186 students in five secondary schools in two courses: English for Latinos at Kosciuszko and Wells Junior High Schools and West Division High School, and Bilingual Typing at Lincoln Junior/Senior High School and South Division and West Division High Schools. Student data for English for Latinos and Bilingual Typing are displayed in Figure 5.

The attrition rate was 25 percent (Table 1). Forty-six students left the program, one percent transferred to other city schools, ten percent dropped the course, five percent moved to Mexico or Puerto Rico, two percent moved out of town, and four percent dropped out of school.

Two South Division courses were dropped for lack of enrollment: Career Orientation, a Title VII course, and the Board-funded Spanish Business Correspondence, recommended as a concurrent offering with Typing II.

English for Latinos

Process

English for Latinos was initiated in 1975-1976 to help secondary students improve English language skills while earning required English credits. In 1977-1978, program enrollment totalled 147 students at Kosciuszko and Wells Junior High Schools and West Division High School. Numbers of students by grade level were:

Grade	7	8	9	10	11	12
Number of Students	35	44	36	21	9	2

Of the 147 total, 14 were English-dominant, 17 Spanish-dominant, and 106 bilingual.

Spanish monolingual students were assessed in learning English by bilingual/bicultural teachers. Students from bilingual homes needed help in developing English vocabulary and comprehension skills. The course was designed originally for students who completed English as a Second Language but whose language was still limited, particularly in grammar and writing.

Methods

All language arts skills were covered, with an emphasis on grammar. Oral reading, writing, using a dictionary, and library work were taught. The three teachers used these methods:

1) Individualized instruction in English. Aide used ESL curriculum for the Spanish-dominant. Oral reading and discussion of stories. Students spent nine weeks in the HILL reading lab.

2) Two ability groups

3) Teacher worked with individuals at their own level, while the aide worked with groups. Classes took field trips to the library.

Materials

"Modern American English"

Scholastic Magazine, Action, Scope

Paperback novels, "Nilda" and "Macho"

"English Made Easier" and "Open Highways" (MPS curriculum)

"Building English Sentences", Institute of Modern Languages

Newspapers

Filmstrips and tapes on grammar

"Study of the Dictionary", Milliken Company

"Two-Word Verbs"

"Getting the Main Idea", Barnell Loft, Ltd.

"American English", Dixon

English Workshop, First Course, Harcourt, Brace, and Jovanovich

"Key Ideas in English", Level I, Harcourt, Brace, and Jovanovich

"English in Action", Dixon

Problems

1) Parent contact is difficult.

2) Course guidelines should be more specific.

3) Teacher needs to modify regular English guidelines for the Bilingual Program.

4) Many pupils who were failing because of language were not programmed into English for Latinos.

5) A testing system is needed for identification of students.

Achievements

1) More materials were available.

Objectives

Ninety percent of the students will demonstrate language competency by producing sentences in each of the four basic sentence patterns and by selecting appropriate standard usage (mean score of 28 or higher on the 40-item Usage Test).

Evaluation Design

1) Students were pre and posttested with the Milwaukee Public Schools Diagnostic Test for English Usage.

2) English listening, reading, writing, and speaking proficiency were assessed pre/post with the Language Assessment Battery, English, Level III. Students who scored at or below the 20th percentile on New York City norms were considered ineffective in English.

Findings

Usage Test (Table 21)

English 7-8: The percent of students who reached the criterion score increased from 59 percent to 63 percent, falling short of the 90 percent goal. The gain in mean scores was not statistically significant.

English 9-12: The percent of students who reached the criterion score increased from 79 percent to 89 percent, very close to the 90 percent goal, although the gain in mean pre/post scores was not statistically significant.

These results paralleled the 1977 findings.

TABLE 21

ENGLISH FOR LATINOS
USAGE TEST

Criterion = 28 of 40 items correct

COURSE LEVEL	NUMBER OF PUPILS	PRETEST			POSTTEST			t
		$\bar{x}$	SD	Percent Reaching Criterion	$\bar{x}$	SD	Percent Reaching Criterion	
English 7-8	49	27.8	4.3	59	28.8	4.6	63	1.11
English 9-12	28	30.5	3.8	79	31.2	2.7	89	0.79

Language Assessment Battery

All students took the total English Level III battery in Fall 1977. Table 22 shows pretest results.

TABLE 22

PRETEST RESULTS ON THE LANGUAGE ASSESSMENT BATTERY
LEVEL III, ENGLISH, BY ENGLISH-FOR-LATINOS STUDENTS

GROUP	LISTENING 30 items			READING 28 items			WRITING 20 items			SPEAKING 14 items			TOTAL 92 items		
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD
Kosciuszko 7-8	47	20.9	4.1	51	11.2	4.5	50	12.2	4.6	51	56.7	1.4	51	56.7	14.6
Kosciuszko 9	15	20.4	4.0	15	17.3	4.8	15	14.9	3.5	15	12.5	2.1	15	66.4	10.8
Wells 8	9	21.1	6.6	9	12.3	6.6				9	9.6	2.5			
West Division 9-12	36	21.5	5.7	38	19.8	5.9	36	19.8	5.9	36	13.6	0.9	36	73.2	11.4

Those who scored below the criterion (20th percentile on New York City norms) on the total pretest were posttested. Table 23 shows scores of the 20th percentile on New York City norms by grade level and numbers of students scoring below criterion. Those scoring below the criterion are considered inefficient in English.

TABLE 23

CRITERION PERFORMANCE
LANGUAGE ASSESSMENT BATTERY, ENGLISH, LEVEL III

GRADE LEVEL	CRITERION SCORE	PRETEST		POSTTEST	
		Number Tested	Number Below Criterion	Number Tested	Number Below Criterion
7	66	34	26	16	6
8	71	22	19	18	15
9	76	28	21	10	8
10	76	9	5		
11	78	10	4		
12	79	3	2		
		106	77	44	29

Seventy-seven of 106 students pretested scored below the criterion for English efficiency.

Forty-four of these 77 were posttested at the end of the year. Of the 44, 29 remained below criterion levels on the total battery. Significant gains were made by these students on the Listening Subtest (comprehension), but not on Reading or Writing, Table 24.

TABLE 24

LANGUAGE ASSESSMENT BATTERY
ENGLISH FOR LATINOS, LEVEL III, ENGLISH

TEST	NUMBER OF ITEMS	NUMBER OF PUPILS	PRETEST $\bar{x}$	PRETEST SD	POSTTEST $\bar{x}$	POSTTEST SD	t
Listening	30	41	21.2	4.1	22.5	4.0	3.09*
Reading	28	43	16.2	5.2	16.8	5.3	0.87
Writing	20	37	14.0	4.4	14.2	3.9	0.33

* Difference between pre/post scores is significant at the .01 level of confidence.

Forty-five students scored below the criterion score, 11, on the speaking pretest. Five were posttested and scored above the criterion.

An item analysis of pretest results for the 79 Kosciuszko students revealed that students had the greatest difficulties with the skills listed in Table 25. These are identified as objectives for each test item in the Language Assessment Battery Manual(3). At least 65 percent of pupils were unsuccessful on items testing the skills in Table 25.

TABLE 25

DIFFICULT LANGUAGE ASSESSMENT BATTERY ITEMS

SUBTEST	SKILL TESTED
Listening	Selection of picture illustrating oral stimulus word
Reading	Identification of explicit information directly expressed in a reading passage
	Drawing an inference based on information given in a reading passage
	Identification of the main idea in a reading passage
Writing	Plural nouns
Speaking	Plural nouns

Discussion

Those students who lacked the necessary skills and who remained in the program made progress in English usage (Usage Test) and comprehension (Listening, Language Assessment Battery Test). As in previous years, teaching, learning, and evaluation were complicated by a high rate of attrition and mid-semester enrollments. Posttesting was not completed by one school's substitute teacher. However, results indicated that initially low-scoring students did not improve in reading or writing skills. This is a replication of 1976-1977 findings and will be of concern to curriculum supervisors. The English Language Arts Curriculum Specialist indicated that the course guidelines are specific and may be adapted by the teacher for special programs. He suggested investigating techniques which have proved useful in teaching English as a Second Language. English proficiency is needed by junior-high students to succeed in senior high and by senior-high students for continuing education and job opportunities.

Bilingual Typing

Process

Bilingual typing courses were offered at Lincoln, South Division, and West Division High Schools. Curricula were developed in 1975-1976 in cooperation with the Business Education Curriculum Specialist.

Methods

Sixty-three students learned the basics in their dominant language, English or Spanish, in Bilingual Typing I. In Bilingual Typing II, they were expected to expand their skills and to operate in both languages. Concurrent enrollment in Spanish Business Correspondence, a Board-funded course, was recommended but not offered because of insufficient enrollment. Typing classes were not offered at South Division High School until second semester, when a bilingual typing teacher joined the staff. Table 26 describes the student population.

TABLE 26

TYPING I AND TYPING II PUPIL DATA

SCHOOL	GRADE LEVEL				TOTAL SERVED	NUMBER OF PUPILS			
	9	10	11	12		English	Spanish	Bilingual	Not Reported
Lincoln:									
Typing I	2	5	1		8			8	
Typing II		2	1		3			3	
South Division:									
Typing I		15	2	7	24	5	10	9	
Typing II			7	2	9	2	2	3	2
West Division:									
Typing I	8	7							
Typing II		1	2	1	15			19	
Total	10	30	13	10	59	7	12	42	2

Methods

The classes met daily and were taught bilingually. Three weeks of data processing were included in the Typing II course at South Division.

Materials

English texts were "Typing 300, Volumes I and II, Gregg" at Lincoln and West Division, and "Century 21" at South Division.

"Mecanográfica Gregg, Primer Curso", McGraw-Hill Book Co., was used for Spanish Typing I and teacher-developed materials for Typing II at Lincoln and West Division. South Division students used "Técnicas Mecanográficas Modernas" for Typing I and II.

Problems

1) Spanish Typing II textbooks were not available at Lincoln and West Division High Schools.

2) Some typing classes conflicted with other bilingual offerings.

3) Spanish Business Correspondence was not offered because of low enrollment.

Achievements

1) Separation of Typing I and Typing II classes at Lincoln and West Division improved learning and teaching conditions.

2) Sufficient English texts and Spanish Typing I texts and workbooks were acquired for the classes at Lincoln and West Division High Schools.

Objectives

Typing I: At the end of Typing I, students will demonstrate, in their dominant language, the ability to . . .

a. recognize proper typing techniques; 90 percent of students.

b. divide words correctly; 75 percent of students.

c. proofread; 90 percent of students.

d. type a minimum of 35 WPM with no more than one error per minute; 90 percent of students.

e. type a letter correctly; 90 percent of students.

Typing II: At the end of Typing II, students will demonstrate the ability, in both English and Spanish, to . . .

a. recognize proper typing techniques; 90 percent of students.

b. divide words correctly; 75 percent of students.

c. solve typing problems correctly.

d. type a minimum of 38 WPM with no more than one error per minute; 90 percent of students.

e. type a letter correctly; 90 percent of students.

Evaluation Design

Typing skills were assessed pre and post with instruments developed by the typing teachers. Posttests included items which were appropriate only at the end of the year: the speed test in Typing I and a rough draft manuscript in Typing II.

Findings

Results are shown in Tables 27 and 28. Thirty-three Typing I students were tested in English and eight in Spanish. Test language was not reported for five students. Typing II test items were written in both English and Spanish.

TABLE 27

STUDENT PERFORMANCE, TYPING I, 1977-1978

OBJECTIVE IN ENGLISH OR SPANISH	MAXIMUM SCORE	PERCENT OF STUDENTS EXPECTED TO ACCOMPLISH OBJECTIVE		NUMBER TESTED	SCORES $\bar{x}$	SCORES SD	t	PERCENT WHO EARNED MAXIMUM SCORE ON POSTTEST
1 - Typing Techniques (12 parts)	15		Pre	34	7.38	1.91	5.80*	0
		90	Post	41	9.98	1.92		
2 - Word Division	5		Pre	33	2.52	0.87	1.21	3
		75	Post	40	2.78	0.97		
3 - Proofreading	10		Pre	34	6.79	2.11	0.82	8
	—	90	Post	40	6.38	2.16		
TOTAL 1-3	30		Pre	34	16.62	3.36	2.89*	
			Post	41	18.88	3.38		
4 - Type 35 words per minute, one or less errors per minute	4	90	Post Only	38	3.00	1.14		74
5 - Letter:								
Style	3	90	Post Only	33	2.60	0.61		67
Punctuation	3			31	2.52	0.63		58
Carbon Copy	3			34	2.50	0.71		62
Folding	3			33	2.88	0.42		97
Envelope	3			33	2.48	0.67		48

* Difference between pre/post scores is significant at the .01 level of confidence.

TABLE 28

STUDENT PERFORMANCE, TYPING II, SECOND SEMESTER, 1978

OBJECTIVE IN ENGLISH AND SPANISH	MAXIMUM SCORE	PERCENT OF STUDENTS EXPECTED TO ACCOMPLISH OBJECTIVE		NUMBER TESTED	RAW SCORES $\bar{x}$	RAW SCORES SD	t	PERCENT WHO EARNED MAXIMUM SCORE
Typing Techniques	15		Pre	14	7.50	2.28	4.77*	0
		75	Post	13	11.00	1.47		
Word Division	10		Pre	14	6.57	1.16	1.43	8
		75	Post	13	7.38	1.71		
Problem Solving	11		Pre	14	6.29	1.07	1.78	0
		75	Post	13	7.54	2.33		
Type 38 words per minute, one or less errors per minute	4		Pre	9	2.89	1.45	0.35	40
		90	Post	5	2.60	1.52		
Letter:		90						
Style	3		Pre	12	2.83	0.39	0.06	82
			Post	11	2.82	0.41		
Punctuation	3		Pre	10	2.30	0.82	1.42	64
			Post	11	2.72	0.47		
Carbon Copy	3		Pre	12	2.33	0.78	2.39	91
			Post	11	2.91	0.30		
Envelope	3		Pre	11	2.36	0.81	0.54	36
			Post	11	2.18	0.75		
Folding	3		Pre	12	2.75	0.62	1.09	50
			Post	10	2.40	0.84		

* Difference between pre/post scores is significant at the .01 level of confidence.

Typing I students showed significant improvement in Typing Techniques and, therefore, achieved the total pre/post Objectives 1 through 3. On the end-of-year timed writing, the average score was three, or 35 to 37 words per minute. Over half of those tested received top scores on typing a letter.

Typing II students made significant gains in the 20 Typing Techniques items, half of which were Spanish and half English. No significant gains were made in Spanish/English Word Division, Problem-Solving, timed writing in English, or letter in Spanish.

Criterion performance was achieved on one item in Typing I and Typing II.

Discussion

Performance fell short of goals, partly because of the delayed start of classes at South Division. In addition, criteria attached to the objectives could be unrealistically high.

Typing II students appear to need more practice in speed typing. The Business Education Curriculum Specialist suggested that revisions be considered in criteria set for speed typing in both Typing I and Typing II.

EVALUATION OF ATTITUDES

Attitude Toward School

Evaluation Design

In spring, both elementary and secondary Bilingual Program pupils were surveyed to estimate group attitudes toward school. Tests were selected from "Affective Measures: Attitude Toward School" published by Instructional Objectives Exchange. Local educators developed Spanish translations enabling all students to be tested in their dominant language.

Two hundred three upper-primary pupils responded to ten statements about two aspects of the classroom, learning tools and physical environment. Upper-primary (third grade) pupils responded to printed statements by marking A (Agree), U (Uncertain), or D (Disagree).

One hundred thirty-nine secondary students in English-for-Latinos classes responded to the School Sentiment Index. The index listed 80 statements describing their teachers, their peers, the social structure and climate of their school, their behavior associated with learning, and their school in general. Students indicated whether they strongly agree, agree, disagree, or strongly disagree with each statement.

Findings

Upper-primary results are shown in Table 29.

TABLE 29

ELEMENTARY ATTITUDE TOWARD SCHOOL
AS MEASURED BY "MY CLASSROOM" SURVEY

GRADE LEVEL	NUMBER OF ITEMS	MAXIMUM SCORE	MEAN RAW SCORE Total Group N	$\bar{x}$
Upper Primary	10	20	203	13.63

The maximum score of 20 points on the upper-primary measures "represents a student perception of learning tools as accessible, interesting, and comprehensible; physical environment as organized and well-managed"(4). These factors are assumed to exist to a greater degree with greater pupil agreement with the statements. Upper-primary pupils averaged 68 percent of the maximum. These results reflect positive feelings.

Secondary students averaged 213 points on the School Sentiment Index. The maximum score, 320, "is indicative of a positive overall attitude toward school"(4). Since these students scored 67 percent of the maximum, we can assume an overall mildly positive attitude toward school, comparable to the third graders' attitude.

Discussion

The outcome suggests that the Bilingual Program is achieving its goal, "To instill pupils with self-respect, confidence, and the desire to remain in school".

However, in the absence of normative data, interpretation is difficult. A comparison of project student and comparison groups is recommended to determine Bilingual Program impact on attitude toward school.

Parent Survey

The parent survey was addressed to the following program goals:

1) Elementary

To cultivate in Spanish-speaking pupils a pride in their native language and culture and a more positive self-image as they make the transition to another culture and language

2) Secondary

To increase the Spanish-speaking pupil's self-concept and pride in his own cultural background and family at the same time he is learning to appreciate and esteem a new culture

To instill pupils with self-respect, confidence, and the desire to remain in school

To foster in students a positive feeling of group identity as members of the Milwaukee Latin-American community

3) Parents

To involve parents and community members in the planning, implementation, and evaluation of the Bilingual Program

To motivate parents to become more involved in the educational process and to become more aware of communication channels between home and school

Evaluation Design

A Spanish/English questionnaire was sent to a random sample of 220 parents (149 K-6 pupils and 71 Grade 7-12 students) via mail in May.

The parent survey was developed in 1977 with the cooperation of the Parent Evaluation Committee and the Bilingual Program administrative staff. In the 1978 modification, two items were omitted to permit respondents to identify

their child's school, grade level, and the ethnic background. "Questionnaire, Parent Attitude Toward Bilingual Education", a publication of the Las Cruces Public Schools, New Mexico, was the model for Items 3, 4, 5, and 6.

Findings

Twenty-two percent (48) of the 220 surveys were returned. Twenty-seven percent (40) of elementary parents and 11 percent (8) of secondary parents responded. Sixty-nine percent responded in English, 21 percent in Spanish. Percent response of elementary and secondary parents is shown in Table 30.

TABLE 30

PARENT SURVEY RESULTS

SURVEY ITEM		PERCENT RESPONSE (N=48)		
Check your child's school:	Elementary	Percent	Secondary	Percent
	Allen-Field	10	Lincoln	0
	Holmes	10	Kosciuszko	8
	Kagel	15	South Division	4
	Longfellow	15	Wells	2
	Pierce	10	West Division	2
	27th Street	16		
	Vieau	8		
Check your child's grade level*:	Kindergarten	17	7th	4
	Lower Primary	31	8th	6
	Middle Primary	13	9th	4
	Upper Primary	10	10th	0
	Extended Primary	2	11th	0
	No Response	19	12th	6
Check your ethnic background:	Hispanic	80		
	Black	4		
	Anglo	10		
	No Response	6		

* Some parents reported more than one child

TABLE 30 (Cont'd)

SURVEY ITEM		PERCENT RESPONSE (N=48)
1. Has the Bilingual Program helped to increase your child's pride in his/her ethnic background?		
	Yes	80
	No	8
	I don't know	10
	No Response	2
2. Have there been changes at home because your child is in the Bilingual Program?		
	We speak more Spanish.	50
	We speak more English.	17
	We cook more Hispanic foods.	21
	We have learned more Puerto Rican history.	10
	We have learned more Mexican history.	13
	Our young child is teaching the older child(ren) to speak Spanish.	17
	We listen to more Hispanic music.	25
	We observe more Hispanic customs.	31
	We feel increased pride in our heritage.	48
	We feel increased pride in our country, the United States.	19
	No Response	2

Other:

Child reads and speaks more Spanish.

We feel that we are humans and no just numbers for the census.

If some day we decide to go back to our country, my kids won't have any problems.

It is more easy to our child to explain any problems.

I like for him to learn more Spanish cause I don't know how to write in Spanish.

Our child is teaching a younger child to speak more Spanish.

TABLE 30 (Cont'd)

SURVEY ITEM	PERCENT RESPONSE (N=48)
2. Have there been changes at home because your child is in the Bilingual Program?	
Other: (Cont'd)	
Our child has formed friendships with other Puerto Rican children who have a variety of experiences and degrees of Spanish/English abilities. This is very positive in learning both languages, by one-helps-another method.	
He has taught his playmates some Spanish words.	
My two younger children learned to read from a Spanish book since they started the Bilingual program at Story School.	
If they should to leave the state, they will not have problems with Spanish.	
The child speaks Spanish with more satisfaction.	
That our language will not be forgotten	
Our daughter is in contact with other Puerto Rican children, and this ways she learns more English.	
3. School seems to be helping my child like himself more than before.	77
School seems to be making no difference in my child's attitude toward himself.	19
School seems to be making my child like himself less than before.	4
4. The school informs me of everything I want to know about my child's schooling.	77
The school informs me very little of what I want to know.	19
The school informs me nothing of what I want to know.	0
No Response	4

TABLE 30 (Cont'd)

SURVEY ITEM	PERCENT RESPONSE (N=48)
5. Parents should be included more in educational decision-making.	61
Parents should be included about as much as they are now included in educational decision-making.	31
Parents should be included less in educational decision-making.	0
No Response	8
6. My child seems to be happy in school.	90
My child seems to be indifferent about school.	4
My child seems to be unhappy in school.	6
7. Activities in which you have participated this year.	
Attended school programs	42
Visited the classroom	69
Met with the teacher	73
Attended parent meetings at school	54
Attended a City-Wide Bilingual/Bicultural Advisory Committee meeting	15
Helped the teacher in the classroom	8
Attended a School Board meeting	4
Accompanied the class on a field trip	15
Attended desegregation meetings	21

At the end of the survey form, parents were invited to add their comments and suggestions, which are quoted in English on the following pages. Comments originally in Spanish are reproduced in the Appendix, Page 139.

Comments or suggestions:

More field trips!

I think the Bilingual Program is an asset to any school and the children enrolled in it are very fortunate. My daughter has benefitted greatly because of the bilingual classroom and has learned Spanish and customs of the Spanish people that I could not have taught her and her Spanish father is not here to teach her.

Keep up the good work.

I'm very happy about this program. I hope it would increase his boundaries of teaching in the bilingual sense. My kids are proud of being Americans, but this program gives a new meaning for them. They learn about our grandparents, the ways of our native island, our customs and so forth. Let's keep it up.

I would like the bilingual program to continue because I think it is helping my kids.

I'm very happy that my son is in a bilingual program. He has improved on speaking Spanish and has more pride in being a Puerto Rican Spanish-speaking person. Thank you for having such a great program.

I like this program cause, as I said, it help him to write and read Spanish. I don't know how to write in Spanish and read very little. And cause his grandparents and his father son are from Mexico and his grandmother doesn't understand English. And I proud of our language.

My child has learned from the Bilingual Program and I am glad that she has been enrolled in the program.

The main value for us has been the remarkable progress our child has made in learning basic skills like arithmetic, reading, and writing. Teaching of Spanish should be more emphasized to help English-dominant child to become genuinely bilingual and so as to have the spin-off effect on other children who are Spanish-dominant. Children learn from each other as much or more than from teachers.

I hope the bilingual program extends to the higher grades at Pierce.

I think foreign language should be taught to the smaller child and ccntinue thruout their school years. We seem to have a lot of Spanish-speaking people here and my child will at least know part of what's going on in their lingo by being able to speak their language. We are white and Irish, but the language is free, and it can be of good use to my daughter in her future years I'm sure.

TABLE 30 (Cont'd)

Comments or suggestions: (Cont'd)

There was a time when they were thinking about taking the program out of 27th Street School. The parents had a meeting and a lot of parents attended. We fought for it to stay at 27th. The children at 27th are doing marvelous. Not only in Spanish, but in all the other subjects. Their talented children and want to learn. Billy never stops. He reads posters, soda bottles, even milk cartons. And, if he reads a word he doesn't know, he wants to know what it means. I think the Bilingual Program is wonderful and he loves it too. We're very proud of him.

I do notice that my child doesn't go on as many field trips as the regular kindergarten children do and he does feel left out because of this.

I would like this program to continue since it was of much help to my children. If I ever decide to return to my country, I believe that they will not have problems with Spanish.

I like the fact that the southside schools have bilingual programs. We don't want our children to ever forget their Spanish. Although sometimes they cannot speak it they still understand it and know a lot about our origins. I like very much for my children to learn English but I also want for them not to forget that we are Latins.

I would also like to mention the marvelous ability that Mrs. Cremer has to teach my children. I sometimes think that there are times when the necessary credit is not given to the teachers when they do a good job in teaching our children. At the same time, I anxiously await the participation of my son in the bilingual program next year. Thank you.

It would be advisable to better the teaching of Spanish for children who basically speak English only, that is, to have a real bilingual program and not merely to teach English alone.

I attended a meeting at Story School last night and I understand that the plans are to leave the bilingual program in kindergarten and first grade only next year. I don't like the idea since I have a son in the fifth grade and another in the sixth at Story and the program has helped them a lot. They have learned to read some Spanish which they could not do before. I ask that the bilingual program remains and that it is extended to all grades.

Discussion

Eighty percent of responding parents believed the Bilingual Program had given their children greater pride in their Latin heritage, 77 percent indicated that school helped their children like themselves better, and 90 percent indicated that their children seemed happy in school. Indirectly, from a parent viewpoint, this was strong evidence that Bilingual Program enrollment made a positive difference in self-image.

Home life was changed for many families because of the Bilingual Program. Fifty percent spoke more Spanish, 31 percent observed more Hispanic customs, and 48 percent felt greater ethnic pride. In over one-third of the homes, a younger child was teaching older siblings to speak Spanish. The extent of program carry-over into the homes was considerable.

More than half the parents had visited the classroom, met with the teacher, and attended parent meetings at the school. However, only 15 percent had attended a meeting of the City-Wide Bilingual/Bicultural Advisory Committee.

A majority of parents expressed a desire to be included more in educational decisions. The City-Wide Bilingual/Bicultural Advisory Committee (CWBBAC) may wish to work with program administrators to increase parental participation. Many parents have gained motivation to become involved in the educational process. The goal of involving them in planning, implementation, and evaluation could be pursued on a higher level than in the past.

ADDITIONAL STUDIES

Additional studies related to the Milwaukee Bilingual/Bicultural Education Program were conducted or coordinated as part of Title VII evaluation activities.

Study	Grade Level	Principal Investigator
Bilingual Typing Survey	8-Graduate	Evaluator
Input Test	3, 6	Dr. Oscar Ozete University of Wisconsin-Madison
Milwaukee Public Schools Language Survey	Pre-Kindergarten-12	Evaluator
Spanish Edition of the Comprehensive Tests of Basic Skills	4, 6, 8	Dr. Norma C. Ross CTB/McGraw-Hill

Reports on the first three studies follow.

Bilingual Typing Survey

In its report on visits to the Milwaukee Bilingual Program in Spring 1977, the Education Resource Team from the Wisconsin Department of Public Instruction noted low enrollments in the Bilingual Typing classes. The report suggested a follow-up study of the usefulness of such courses to students after graduation.

Method

The survey format was developed by the evaluator in consultation with the Project Director, the Business Education Curriculum Specialist, and the Bilingual Secondary Supervising Teacher.

In 1976-1977, 73 students were enrolled in Bilingual Typing I or II in three schools. Four, an inadequate sample, were known to be seniors. Therefore, the survey conducted in February 1978, was mailed to the 60 students for whom addresses could be obtained, including the four seniors. Six envelopes were returned "Address Unknown", 16 responses were received (27 percent), and 38 were not returned.

Findings

The number and percent of the 16 responses to each survey item is reported in Table 31. Comments in response to open-ended questions are reproduced as received, without corrections for grammar and spelling.

TABLE 31

BILINGUAL TYPING SURVEY, FEBRUARY 1978

N = 16

QUESTION	RESPONSES Number	Percent
1. Which bilingual typing course did you take in 1976-1977?		
Typing I	8	50
Typing II	9	56
2. Why did you enroll in bilingual typing?		
To learn secretarial skills	7	44
To learn personal typing skills	3	19
My counselor or teacher advised me to enroll.	3	19
To help with my future career	11	69
To help me get a summer job	1	6
To use in my school work	3	19
To get ready for college	3	19
Other (Please explain.)	5	31
"To improve my Spanish"		
"I been in the bilingual program for three years and I no like it."		
"My mother told me it was good for a future job."		
"It had taught me a lot of secretarial skill."		
"And also to learn how to type in Spanish"		
3. Did you learn what you expected to?		
Yes	14	88
No	2	13
No Response	1	6

TABLE 31 (Cont'd)

QUESTION		RESPONSES Number	Percent
3. (Continued)			
If not, why not?			
"We didn't have the needed supplies. Spanish typing books and workbooks were insufficient."			
"No, not quit enough because I feel that if the course would of perceed that I would of learn more."			
4. Did you attend class regularly?			
	Yes	14	88
	No	3	19
If not, why not?			
"But now I have four hour bilingual class in English. I no like it and don't hardly go until they get a bilingual teacher."			
"I was sick a couple of times in the year."			
5. Did you like your bilingual typing class?			
	Yes	16	100
	No	0	0
If not, why not?			
"Yes. She was a very, very nice teacher. She help us a lot. I like her very much."			
6. At this time, are you using the typing skills you learned in class?			
	Yes	12	75
	No	3	19
	No Response	2	13

TABLE 31 (Cont'd)

QUESTION	RESPONSES Number	Percent
6. (Continued)		
If yes, in which ways (school, job, personal)?		
"I'm using my typing skills at work."	6	38
"School"	5	31
"Personal"	2	13
"Yes. I work in MATC for Oscar Arnera and Chico Ruiz and it's our Spanish skills."	1	6
"At home to do some of my work"	1	6
"A job following by my school skills"	1	6
7. Would you recommend the bilingual typing courses to your friends?		
Yes	16	100
No	0	0
8. What career would you like to follow?		
"I would like a secretary career (bilingual one)."	2	13
"Keypunch operator"	1	6
"Secretary, business administration"	1	6
"Like to be able to use my secretarial skills but also be able to work with the public (people)"	1	6
"Medicine"	1	6
"I would like court recorder."	2	13
"Business, accounting"	1	6
"I would like to be like my mother and work in doing both English and Spanish work with people."	1	6

TABLE 31 (Cont'd)

QUESTION	RESPONSES Number	Percent
8. (Continued)		
"A mixed course with secretarial and nursing skills"	1	6
"Engineering"	1	6
"Secretarial career"	1	6
"Barbering and office courses"	1	6
"Undecided, but at this time I do work in typing in Spanish"	1	6
"I would like to follow typing skills"	1	6

9. Please give your suggestions for improving the bilingual typing classes.

"I think if you take typing it would help you get ready for the future and you learn how to type good. A lot of people took Typing I and II and want to take Typing III. But we don't have Typing III in our school. The teacher try it to get Typing III but they didn't accept it."

"Give more lessons in Spanish. Most of the time the typing was done in English."

"Have sufficient material for class. Teacher with a stronger dominance of the Spanish language. Even though this wasn't the case in bilingual typing last year, most bilingual faculty members tend to use primarily the English language during classroom session so the student is not able to express himself/herself freely in their native language."

"I really like it. I learn alot each day. That's the only bilingual program I like is typing. Others, no way."

"There should be a bilingual Typing III class. If the students want to take the bilingual typing courses, they should start when they're sophomores."

"They should get a couple more boys in then more will follow."

TABLE 31 (Cont'd)

QUESTION		RESPONSES Number	Percent
9. (Continued)			
"It would be better if they had a little bit more of Spanish typing and if they had the business van more often at the schools."			
"Keep on typing a little harder"			
"There should be more bilingual typing teachers for in the near future. Students would have the opportunity that the past student didn't get."			
"Better methods on getting to know the Spanish keys"			
"It would be better to have a better Spanish typing book. Maybe the exact one as the English but maybe translated into Spanish."			
"Yes, I think that it would be continue because I feel that it is an important course and it helps out a hole lot not just for me but to many other students too."			
10. Did you take Bilingual Business Correspondence along with your typing course?			
	Yes	5	31
	No	10	63
	No Response	1	6

Discussion

Most students enrolled in the typing courses to learn job-related skills. All of them liked the course and would recommend it to friends. Seventy-five percent or more learned what they expected to in 1977 and are using the skills this year.

Only one-third took the recommended Bilingual Business Correspondence course along with typing in 1976-1977.

Their suggestions for improvement emphasized the need for increased use of Spanish as a classroom and textbook language, and for more equipment.

The poor quality of the open-ended responses demonstrated a pressing need for instruction in English grammar, spelling, and communication skills, if these students are to compete in the job market for the careers to which they aspire.

Modified Cloze Test for Spanish Reading Comprehension

Dr. Oscar Ozete, University of Wisconsin-Madison, developed a method, the Modified Cloze Test, for the assessment of Spanish reading comprehension in 1975-1976. The procedure filled a need of the Milwaukee Bilingual Program. The procedure makes it possible to construct a comprehension test of any appropriate Spanish selection. In 1977 and 1978, ESEA Title VII provided partial support to the Wisconsin Department of Public Instruction for refinement of the procedure by Dr. Ozete. The studies were performed in third- and sixth-grade Bilingual Program classes in the Milwaukee Public Schools. In 1977, reliabilities, cross validations, and local norms were established for two forms of the Modified Cloze Test(5). In 1978, the same two forms of the Modified Cloze Test were studied further and compared with two forms of a traditional Cloze Test developed with the same methods.

Evaluation Design

Spanish passages appropriate for third grade and four for sixth grade were selected by the Elementary Bilingual Supervising Teacher. Comparable difficulty level was established at each grade level. The population tested was Bilingual Program third-grade pupils in seven schools and sixth-grade pupils at Vieau School.

1) Modified Cloze Test

The pupil selected every fifth word in the passages by underlining one of three choices. Grade 3 and Grade 6 each had two forms, A and B.

Form A: Distractors were different parts of speech selected at random from the 25 words preceding or following the test word.

Form B: Distractors were the same part of speech selected from the Spaulding Word List and The Frequency Dictionary of Spanish Words.

All students took Form A and Form B in one sitting.

2) Cloze Test

The pupil supplied deleted words in two additional passages. Grade 3 and Grade 6 each had two forms, A and B.

Form A: Every fifth word deleted

Form B: Every eighth word deleted

Forms A and B of the third-grade and sixth-grade versions were administered to pupils at Vieau School the following day.

Modified Cloze Tests, Forms A and B, were given to 161 upper-primary (third grade) pupils in seven schools; 33 also took the Cloze Test, Forms A and B.

Twenty-seven sixth graders took Modified Cloze, Forms A and B, and/or Cloze, Forms A and B. Either the exact word or a synonym was accepted as correct. The Cloze Test results are reported in Table 32.

Findings

One hundred sixty-one third-grade pupils averaged 8.68 on Modified Cloze A and 7.45 on Modified Cloze B. The difference was significant at the .01 level. Third graders were more successful with Modified Cloze A (different parts of speech distractors) than Modified Cloze B (same part of speech distractors).

Table 32 gives results of pupils who took both Modified Cloze and Cloze Tests.

TABLE 32

PUPIL PERFORMANCE ON THE MODIFIED CLOZE AND CLOZE TESTS OF SPANISH READING COMPREHENSION, JUNE 1978

TEST AND GRADE LEVEL	FORM	MODIFIED CLOZE (20 items) N	$\bar{x}$	SD	CLOZE (20 items) N	$\bar{x}$	SD	t-TEST OF DIFFERENCE BETWEEN MODIFIED CLOZE AND CLOZE
3	A	33	10.8	7.0	31	7.3	4.7	2.39**
	B	33	8.7	6.5	31	4.4	4.7	3.02*
6	A	24	15.8	4.0	27	7.8	4.4	6.80*
	B	24	13.8	4.9	27	6.2	4.6	5.69*

* Difference between Modified Cloze and Cloze is significant at the .01 level of confidence.

** Difference between Modified Cloze and Cloze is significant at the .05 level of confidence.

Both third-grade and sixth-grade pupils scored significantly higher on the Modified Cloze Test than the Cloze Test on passages of comparable difficulty. In other words, selection of the correct word by recognition (underline correct one of three words) is easier than by recall (produce the correct word). The Modified Cloze method appears to be the most appropriate for elementary levels of Spanish reading comprehension.

Discussion

Refinement of the Ozete procedures for the Modified Cloze Test of Spanish reading comprehension has filled a long-standing need for a valid assessment instrument. Item analyses of individual and group performance can provide the teacher with a diagnosis of areas where further study is needed.

Using this procedure, any Spanish passage deemed appropriate by the bilingual teacher can be checked for difficulty level and used as a test of Spanish comprehension.

A Census of Limited-English-Speaking Pupils in the Milwaukee Public Schools

The third annual census of limited-English-speaking pupils in the Milwaukee Public Schools was conducted jointly by the Departments of Educational Research and Pupil Personnel Services in January 1978. The language survey originated in 1976 to insure compliance with a 1974 United States Supreme Court decision requiring school districts receiving federal aid to provide instructional programs to non-English-speaking children by using the child's first language as a bridge to English instruction. The 1977 and 1978 surveys also satisfied a state requirement for the identification of pupils eligible for bilingual education. In 1976, Wisconsin Statutes Sec. 115.96 mandated school districts to provide a bilingual program for ten or more district students dominant in a specific non-English language: by July 1, 1977, for kindergarten to grade three; by July 1, 1979, for grades four through eight; and by July 1, 1981, in high school. State funds support 70 percent of the educational costs for limited-English-speaking pupils enrolled in bilingual programs.

Limited-English-speaking pupils were those who could be assigned to one of the English Language Proficiency Levels defined by the Wisconsin Department of Public Instruction:

1. Does not understand or speak English.
2. Understands simple sentences in English but speaks no English except isolated words or expressions.
3. Understands and speaks English with hesitancy and difficulty. With help can converse in English, understand at least parts of lessons, and follow simple directions.
4. Understands, speaks, reads, and writes English without apparent difficulty but displays low achievement which may indicate some language or cultural interference with learning.

The census procedure consisted of asking classroom or homeroom teachers to identify pupils in Proficiency Levels 1 through 4, report the source of their information, and to indicate whether the student was enrolled in a bilingual or English-as-a-Second-Language program. Table 33 lists, alphabetically by language, the numbers of pupils at each English language proficiency level.

TABLE 33

CENSUS OF STUDENTS
WITH LIMITED-ENGLISH-SPEAKING ABILITY
JANUARY 1978

English Language Proficiency Levels:

1. Does not understand or speak English.
2. Understands simple sentences in English but speaks no English except isolated words or expressions.
3. Understands and speaks English with hesitancy and difficulty. With help can converse in English, understand at least parts of lessons, and follow simple directions.
4. Understands, speaks, reads, and writes English without apparent difficulty but displays low achievement which may indicate some language or cultural interference with learning.

LANGUAGE	ENGLISH LANGUAGE PROFICIENCY LEVEL 1 N=127	2 N=217	3 N=656	4 N=1,463	SYSTEM TOTAL N=2,463
Arabic	2	2	4	13	21
Black			2	7	9
Chinese	1	11	12	2	26
Croatian				4	4
Czech			1	1	2
Dutch				2	2
Egyptian			1		1
French			1	3	4
Gaelic				1	1

TABLE 33 (Cont'd)

LANGUAGE	ENGLISH LANGUAGE PROFICIENCY LEVEL 1 N=127	2 N=217	3 N=656	4 N=1,463	SYSTEM TOTAL N=2,463
German			2	10	12
Greek		2	7	17	26
Indian (India)			4	4	8
Indonesian			1		1
Iranian			1		1
Italian	1	1	8	14	24
Jamaican				1	1
Japanese		3	1	1	5
Jordanian			2		2
Korean		2	2	7	11
Lao			10	1	11
Native American			3	66	69
Pakistani				2	2
Philippino		1	2	3	6
Polish		1	4	10	15
Portuguese		1		3	4
Rumanian		1	1		2
Russian	1	7	5	3	16
Serbian		2	1	13	16
Slovak			2	1	3
Spanish	117	178	547	1,239	2,081
Swedish				1	1

TABLE 33 (Cont'd)

LANGUAGE	ENGLISH LANGUAGE PROFICIENCY LEVEL 1 N=127	2 N=217	3 N=656	4 N=1,463	SYSTEM TOTAL N=2,463
Syrian				1	1
Ugandan			1	1	2
Ukranian				1	1
Vietnamese	3	4	20	12	39
Yugoslavian				1	1
Other	2	1	7	12	22
Language Not Reported			4	6	10

Programs for Limited-English-Speaking Students

Spanish is the first language of 85 percent of the limited-English-speaking students. In the school year 1978, Milwaukee had a Spanish/English bilingual program in 11 elementary and six secondary schools, with a total enrollment of 1,797. Reimbursement was received from the state for those who were limited English-speaking.

The goal of the state legislation in regard to bilingual education is to help pupils until they are able to perform ordinary classwork in English (transitional bilingual program). The Milwaukee Public Schools carry the commitment further by providing long-term, simultaneous study of two languages (maintenance bilingual program). Although state reimbursement is not received for Milwaukee pupils who have attained English proficiency, the Wisconsin

Department of Public Instruction continues to provide consultation and moral support for this maintenance bilingual program. Milwaukee's Bilingual/ Bicultural Education Program was initiated in the 1969-1970 school year.

The English-as-a-Second-Language (ESL) Program serves approximately 390 Kindergarten through Grade 12 students in 45 schools. These are the students assigned to English Language Proficiency Levels 1 and 2 in Table 33. The Center for Newly-Arrived Non-English-Speaking Pupils at Allen-Field was added to the ESL Program in September 1977. Ethnic and language opportunities are provided by bilingual consultants for pupils whose background is other than Spanish. The ESL Program is funded by the Milwaukee Public Schools.

Evaluation of Preservice Workshop

Teachers who attended Preservice Workshops in August were asked to rate the value of each session. As Table 34 indicates, all sessions except Testing and Evaluation were valued highly by all or most of the teachers.

TABLE 34

TEACHER OPINION OF PRESERVICE WORKSHOPS

	NUMBER OF PARTICIPANTS	PERCENT RESPONSE		
		Worthless	Valuable	Very Valuable
Testing and Evaluation	27	52	44	4
Mathematics Session	30		60	40
Bilingual Teaching Methods	26		31	69
Spanish Reading	23	4	57	39

The testing session included review of new instruments and training in test administration, topics which were not relevant to all grade levels in some cases or to experienced teachers in others.

Staff meetings on evaluation procedures would be more valuable if time were available to hold meetings by grade level.

SUMMARY AND RECOMMENDATIONS

The 1,004 pupils in the 1976-1977 ESEA Title VII Bilingual/Bicultural Education Program varied in language dominance from monolingual English to various shades of bilingualism to monolingual Spanish. If the developmental program reaches its goals, the 818 elementary pupils will "pursue their studies with about equal ease in their first and second languages" by the end of grade six, and the 186 secondary students will "increase their communication skills in English and Spanish". In the "developmental" model, bilingual teachers present the regular curricula in both Spanish and English in a K-12 program which emphasizes Hispanic culture.

The evaluation report covers kindergarten through third grade and three secondary offerings, all partly supported by ESEA Title VII. 1977-1978 was the third year of a four-year continuation grant for the development of an exemplary bilingual program. The evaluation covered academic achievement, language skills, teacher interviews, and attitudes. The major end-of-year findings were:

Kindergarten

On the Metropolitan Readiness Tests, Bilingual Program pupils tested at Levels I and II achieved the program objective by equalling (Level I) or exceeding (Level II) the performance of Spanish-surnamed children in the regular program comparison group. On national norms, Level I pupils scored "low" and Level II "average". Bilingual All-Day Kindergarten classes scored the same as half-day classes on Level I (lower achievers) and significantly higher on Level II. A possible interpretation of this finding is that acquisition of basic skills enabled pupils to benefit from the lengthened school day.

English Reading

The average gain in reading levels was 3.2 at lower primary, 2.0 at middle primary, and 1.8 at upper primary. On the Metropolitan Achievement Tests, upper-primary pupils scored significantly higher than a Spanish-surnamed comparison group, "average" on national norms.

Spanish Reading

The average yearly gain in Spanish reading levels was 3.9 in lower primary, 3.2 in middle primary, and 0.4 in upper primary. Lower- and middle-primary gains were higher than in 1976-1977. At upper primary, gains were low and pupils fell short of criterion performance on the Ozete Test of Spanish Reading Comprehension.

Bilingual Skills

By the end of upper primary, 85 percent of the pupils were reading both English and Spanish. The average reading levels were 5.2 at lower primary, 7.6 at middle primary, and 6.7 at upper primary. Results of the English and Spanish Language Assessment Batteries confirmed the observation of the Bilingual Resource Team that pupils were using two languages for meaningful communication.

Mathematics

By the end of upper primary, Bilingual Program pupils scored higher than the Spanish-surnamed comparison group on the Metropolitan Achievement Tests, Mathematics. Both City-Wide and Bilingual Program pupils rated "average" on national norms. Spanish-dominant pupil performance was slightly lower, possibly reflecting the lack of available Spanish mathematics textbooks.

English for Latinos

The group posted gains in English usage and comprehension. Initially, low-scoring students did not demonstrate improvement in reading or writing skills.

Typing

All students evidenced gains in typing techniques. Typing I students also achieved objectives related to timed typing and typing a letter. Under-achievement of many objectives may have been influenced by the postponement of classes until second semester at South Division.

Attitude Toward School

Upper-primary and English-for-Latinos students demonstrated positive attitudes toward school factors, indicating achievement of a program goal.

Parent Survey

The majority of survey respondents felt that the Bilingual Program increased their childrens' pride in their heritage. Ninety percent indicated that their child is happy in school, and 50 percent noted that more Spanish is spoken at home. The majority of parents had visited the classroom and met the teacher. Parents would like to be included more in educational decisions.

Additional Studies

1) Bilingual Typing Survey

   All former Bilingual Typing students reported that they liked the course and would recommend it to friends. At least 75 percent learned what they expected to and were making use of their typing skills. The quality of their open-ended responses indicated a need for additional instruction in English communication skills.

2) Input Test for Spanish Reading Comprehension

   Alternative forms of the test procedure were refined, resulting in a reliable, valid method for the measurement of Spanish reading comprehension by the classroom teacher.

3) Census of Limited-English-Speaking Pupils

   Procedures for the identification of limited-English-speaking pupils in the Milwaukee Public Schools were revised to conform to new State of Wisconsin guidelines. Spanish was the dominant language of 2,081 (84 percent) of limited-English pupils.

Based on evaluation findings and the annual report of the Bilingual Resource Team, the following recommendations were suggested by bilingual and regular program supervisory staff from the Department of Curriculum and Instruction and the evaluator:

Elementary

1) Establish a bilingual kindergarten at Holmes School.

2) Provide special help for middle- and upper-primary pupils who are non-readers.

3) Use the revised editions of SOBER Español to identify skill needs for all readers of Spanish.

4) Continue to promote the development of written communication in both English and Spanish.

5) Develop a file of word problems for Spanish mathematics.

6) Take a close look at the problems posed by attempting to cover the total curricula in both languages within the limits of the school day with the goal of finding ways to lighten the burden for teachers and pupils.

7) Develop a preschool or home program to help children prepare for the kindergarten experience.

Secondary

8) English for Latinos: Develop a teacher's guide based on the Milwaukee Public Schools English curriculum and emphasizing methods for the special needs of Hispanic students.

9) Typing I and II: Revise criteria for objectives relating to speed typing. Continue to encourage concurrent enrollment in Spanish Business Correspondence. Continue promoting improvement of English grammar, spelling, and communication skills.

10) Develop a plan to reach students with poor attendance records.

Program-Wide

11) Offer more opportunities for parent participation in educational planning, implementation, and evaluation.

Educational Resource Team

After their annual classroom visitation, team members (seven educators from the Wisconsin Department of Public Instruction and the University of Wisconsin-Milwaukee) submitted the following recommendations:

1) Consideration should be given to resolving the question of the Bilingual Program at the Wisconsin Avenue School and at Story School.

2) Consideration should be given to alternating the use of the two languages throughout the program.

3) Every effort should be made to equalize the availability of bilingual/bicultural materials throughout the program using designated funds from federal, state, and local sources.

4) Consideration should be given to setting up inservice workshops to improve teacher skills in such areas as teaching techniques, classroom management, and the nature of the curriculum of the Milwaukee Public Schools in Grades K-3.

5) Consideration should be given to having all kindergartens on a half-day basis.

6) Future inservice efforts should be directed toward a clarification among teachers in the Bilingual Program regarding the nature of the mathematics program in the Milwaukee schools and how it can be properly coordinated with the mathematics program in the Bilingual Program.

7) Consideration should be given to employing an additional bilingual elementary supervisor in order to more adequately give service to the bilingual staff.

8) Ways should be explored to obtain additional Spanish language materials which are needed to implement properly the SCIS curriculum.

9) Future inservice efforts should be directed toward helping elementary school teachers teach the SCIS curriculum more effectively.

10) Ways should be sought to provide students more opportunities to work independently within the science program at all levels and to present observations and laboratory results to their fellow students.

11) Attention should be given to expanding the existing science program at the secondary level after the pattern of the biology program which meets the goal of offering a curriculum comparable to that of the regular Milwaukee program.

12) Consideration should be given to establishing a central supply and ordering system which would make consumable and living materials more readily available to bilingual teachers using the SCIS materials.

13) Efforts should be made to update texts currently being used in the bilingual high school sociology course.

14) Inservice efforts should be directed toward the establishment of a common vocabulary in the bilingual social studies program, one that addresses history and the several social science disciplines.

15) It is recommended that the bilingual social studies staff devote some of their inservice time during the coming year to an articulation of the history and social science vocabulary list and the conceptualization of the history and human culture frameworks.

It should be noted that all recommendations were suggested as improvements to a bilingual program which began in 1969 and has developed into a nationally-recognized exemplary project.

REFERENCES

Reference

1 The State of Civil Rights: 1977. A Report of the United States Commission on Civil Rights. U.S. Government Printing Office. Washington, D.C. February 1978.

2 Ching, Doris C. Reading and the Bilingual Child. International Reading Association. Newark, Delaware. 1976.

3 New York City Language Assessment Battery Technical Manual. Houghton-Mifflin Company. Geneva, Illinois. 1976.

4 10X Objectives-Based Tests. Instructional Objectives Exchange. Los Angeles, California. 1973.

5 Ozete, Oscar. Assessing Reading Comprehension in Spanish for Bilingual Children. Bulletin No. 9533. Wisconsin Department of Public Instruction. Madison, Wisconsin. 1978.

ABBREVIATIONS

MPS = Milwaukee Public Schools

N = Number of Pupils
% = Percent of Pupils
PA = Percent Achievement

Eng = English
Span = Spanish

LP = Lower Primary
MP = Middle Primary
UP = Upper Primary
EP = Extended Primary

$\bar{x}$ = Mean
SD = Standard Deviation
t = t-test for difference between mean scores
S = Stanine

LAB = Language Assessment Battery
MRT = Metropolitan Readiness Tests

CWBBAC = City-Wide Bilingual/Bicultural Advisory Committee
ESL = English as a Second Language
SOBER = System for Objectives-Based Evaluation of Reading (Spanish)

APPENDIX

CUESTIONARIO DE PADRES

#2. ¿Han ocurrido cambios en su casa por que su hijo está en el programa bilingue?

Si tienen que salir de este estado no tienen problems con el español.

El niño habla Español con mas satisfación.

Que no se olvide nuestra lengua.

Nuestra hija esta en contacto con otros niños puertoriqueños y así aprende mejor el ingles.

Comentarios o sugerencias:

Me gustaria que este programa continuaro ya que una ayuda muy grande para mis hijos. Si algun dia decido volver a mi pais creo que ellos no tendron problemas ningunos con el español.

Me gusto mucho que las escuelas del southside tengan un programo bilingue, no quiere mos que nuestros hijos alruden en ningun momento; el español; aunque no pueden algunos veces; hablando pero lo entienden y saben mucho hacerco del edromo y nuestro hongen; me gusto mucho que mis hijos aprendon Inglés pero tambien nue gusto que no se alruden que somor latinos.

Deseo mencionar la abilidad navavillasa que tiene la señora Cremer en la ensenansa se mi hijo. Pienso que hay momentos cuando no se les da el merito necesario a las maestras cuando hacen un buen trabajo en enseñar a nuestros hijos/hijas. Al mismo tiempo espero con ansiedad la particapación de mi hijo en el Programa Bilingue en el proximo año escolar. Gracias.

Seria aconsejable mejorar la enseñanza de español para los niños que basicamente hablan inglés, o sea, realmente tener un programa bilingüe y no un aprendizaje de inglés nada más.

Yo atendi anoche una reunión Bilingue en la Story School y tengo entendido que creo que piendan dejar el programa Bilingue solamente al Kinder y primer grado en el proximo año. A mi no me parece bien la idea de que lo guiten porque yo tengo un niño en 5th y otro en 6th y estan en el programa Bilingue en la Story y les ha ayudado bastante. Ya han aprendido a leer un poco Español, cuando que antes no sabian. Yo pido que el Programa Bilingue continue y que se extienda a todo los grados.

Test 1 SOBER Español 1977-1978

Objective Number	Objective	Test Period	Fall		Spring	
		Grade Level	MP	UP	LP	MP
		No. Tested	4	4	10	1
			PERCENT CORRECT *			
1109	Given two words orally, the learner will indicate whether the words rhyme.		75	100	100	100
1152	Given the name of a letter orally, the learner will handwrite the letter in uppercase or lowercase.		25	75	60	
1154	Given a manuscript uppercase (or lowercase) letter, the learner will write its corresponding lowercase (or uppercase) form.		100	100	100	
1202	Given a word orally that has a single initial consonant, the learner will write the initial consonant.			100	80	100
1242	Given a word orally that has a single vowel, the learner will write the vowel.			50	90	100
1243	Given an illustration of an animal or thing whose name has an initial vowel, the learner will write the initial vowel.		75	100	100	
1301	Given a word orally, the learner will write it correctly.		25	50	40	
2102	Given a written word, the learner will identify it in a set of given words.		50	75	90	100
2201	Given a written letter, numeral, or symbol, the learner will identify it in a written set of letters, numerals, or symbols.		100	100	80	100
2241	Given a set of written letters, one of which is a vowel, the learner will identify the vowel.		75	50	100	100
2262	Given a consonant sound orally and given a set of written consonants, the learner will identify the consonant given orally.		50	100	100	100
2264	Given a set of written words that contain the same initial consonant and given the words orally, the learner will identify the word whose initial consonant has a different pronunciation from that of the others.		50	50	70	100

* Percent of pupils who answered correctly all three test items for the objective.

Blank spaces = no scores reported

Objective Number	Objective	Test Period	Fall		Spring	
		Grade Level	MP	UP	LP	MP
		No. Tested	4	4	10	1
			PERCENT CORRECT *			
2502	Given a written vowel and a set of illustrations of animals or things, the learner will identify the illustration whose name contains the vowel in initial position.		50	75	100	100
3101	Given a word orally and given a set of illustrations, the learner will identify the illustration of the word.		100	100	100	100
2701	Given one word orally and a set of written words, the learner will identify the word given orally.		25	50	100	100
3121	Given a sentence orally and given a set of illustrations, the learner will identify the illustration of the sentence.		100	100	100	100
3105	Given an illustration of a word and a set of written words, the learner will identify the word that corresponds to the illustration.		25	75	100	100
2702	Given a written word, the learner will pronounce it correctly.		25	50	90	100
1132	Given a set of words orally that have the same initial vowel sound, the learner will reproduce the initial vowel sound orally.		25	100	80	100
1135	Given a set of words orally that have the same initial consonant sound, the learner will reproduce the initial consonant sound orally.		100	100	100	100

* Percent of pupils who answered correctly all three test items for the objectives

Test 2 SOBER Español 1977-1978

Objective Number	Objective	Test Period	Fall		Spring	
		Grade Level	MP	UP	LP	MP
		No. Tested	9	12	1	18
			PERCENT CORRECT *			
1104	Given two words orally with medial vowel sounds that are the same or different, the learner will indicate whether the words are identical.		78	50		44
@ 1202	Given a word orally that has a single initial consonant, the learner will write the initial consonant.		100	58	100	72
1203	Given a word orally that has a single medial consonant, the learner will write the medial consonant.		44	58	100	56
1204	Given a word orally that has a final consonant, the learner will write the final consonant.		67	50		72
1221	Given a consonant blend sound orally, the learner will write the letters representing that sound.		67	42	100	33
1222	Given a word orally that has an initial consonant blend, the learner will write the initial consonant blend.			8		33
1223	Given a word orally that has a medial consonant blend, the learner will write the medial consonant blend.		33	25	100	17
1227	Given a word orally that has an initial consonant digraph, the learner will write the initial consonant digraph.			22	100	17
1228	Given a word orally that has a medial consonant digraph, the learner will write the medial consonant digraph.		22	8	100	17
@ 1242	Given a word orally that has a single vowel, the learner will write the vowel.		89	75	100	56
1262	Given a word orally that has a diphthong, the learner will write the diphthong.		22	8		17

* Percent of pupils who answered correctly all three test items for the objective.

@ Also on Test 1

Blank spaces = no scores reported

Objective Number	Objective	Test Period	Fall		Spring	
		Grade Level	MP	UP	LP	MP
		No. Tested	9	12	1	18
			PERCENT CORRECT *			
2221	Given a written letter, the learner will identify from a set of written letters the one that follows it in the alphabet.		78	50		72
2291	Given a written consonant and a set of illustrations of animals or things, the learner will identify the illustration whose name has the consonant in final position.		56	50	100	61
2302	Given a written consonant blend and a set of illustrations of animals or things, the learner will identify the illustration whose name contains the consonant blend in initial position.		78	58	100	56
2321	Given a written consonant blend and a set of illustrations of animals or things, the learner will identify the illustration whose name contains the consonant blend in medial position.		78	33		17
2422	Given a written consonant digraph and a set of illustrations of animals or things, the learner will identify the illustration whose name contains the consonant digraph in medial position.		78	33	100	39
3304	Given a singular written word, the learner will write the plural form of the word.		11		100	28
3305	Given a plural written word, the learner will write the singular form of the word.					
2504	Given a written vowel and a set of illustrations of animals or things, the learner will identify the illustration whose name contains the vowel in medial position.		11			06
1133	Given a set of words orally that have the same medial vowel sound, the learner will reproduce the medial vowel sound orally.		89	50	100	50

* Percent of pupils who answered correctly all three test items for the objective.

Test 3 SOBER Español 1977-1978

Test Period	Fall
Grade Level	UP
No. Tested	1

Objective Number	Objective	PERCENT CORRECT *
1156	Given the name of a punctuation mark or a diacritical mark orally, the learner will write the punctuation mark or the diacritical mark.	100
#1227	Given a word orally that has an initial consonant digraph, the learner will write the initial consonant digraph.	100
#1262	Given a word orally that has a diphthong, the learner will write the diphthong.	100
1322	Given a written word, the learner will divide the word into syllables.	100
1401	Given a written selection, the learner will identify the letters that should be uppercase.	
1361	Given a written word without the required accent mark and given the same word orally, the learner will write in the accent mark.	
#2221	Given a written letter, the learner will identify from a set of written letters the one that follows it in the alphabet.	100
2222	Given a written letter, the learner will identify from a set of written letters the one that precedes it in the alphabet.	100
2303	Given a set of written words, the learner will identify the word that contains an initial consonant blend.	100
2403	Given a set of written words, the learner will identify the word that contains a consonant digraph in initial position.	100

* Percent of pupils who answered correctly all three test items for the objective.

@ Also on Test 1

Also on Test 2

Blank spaces = no scores reported

Objective Number	Objective	Test Period	Fall
		Grade Level	UP
		No. Tested	1
			PERCENT CORRECT *
#2302	Given a written consonant blend and a set of illustrations of animals or things, the learner will identify the illustration whose name contains the consonant blend in initial position.		
2402	Given a written consonant digraph and a set of illustrations of animals or things, the learner will identify the illustration whose name contains the digraph in initial position.		100
#2422	Given a written consonant digraph and a set of illustrations of animals or things, the learner will identify the illustration whose name contains the consonant digraph in medial position.		100
@2502	Given a written vowel and a set of illustrations of animals of things, the learner will identify the illustration whose name contains the vowel in initial position.		100
2601	Given a written diphthong and a set of illustrations of animals or things, the learner will identify the illustration whose name contains the diphthong.		100
3306	Given an imcomplete written sentence and a set of written words, the learner will identify the form of the word that correctly completes the sentence.		100
#3305	Given a plural written word, the learner will write the singluar form of the word.		
3323	Given a written sentence with the verb missing and a set of written inflected forms of a verb, the learner will identify the form that correctly completes the sentence.		
3363	Given a written root word and a written suffix, the learner will write the word that the two parts form.		
3381	Given a written masculine word and a set of written words, the learner will identify the feminine counterpart of the masculine word.		100

* Percent of pupils who answered correctly all three test items for the objective.

@ Also on Test 1

Also on Test 2